

The Tinker's Toolkit

D&D 5th Edition Race Design

Based on a mathematical analysis of
canon races

With 37 new races!

By Karl David Brown

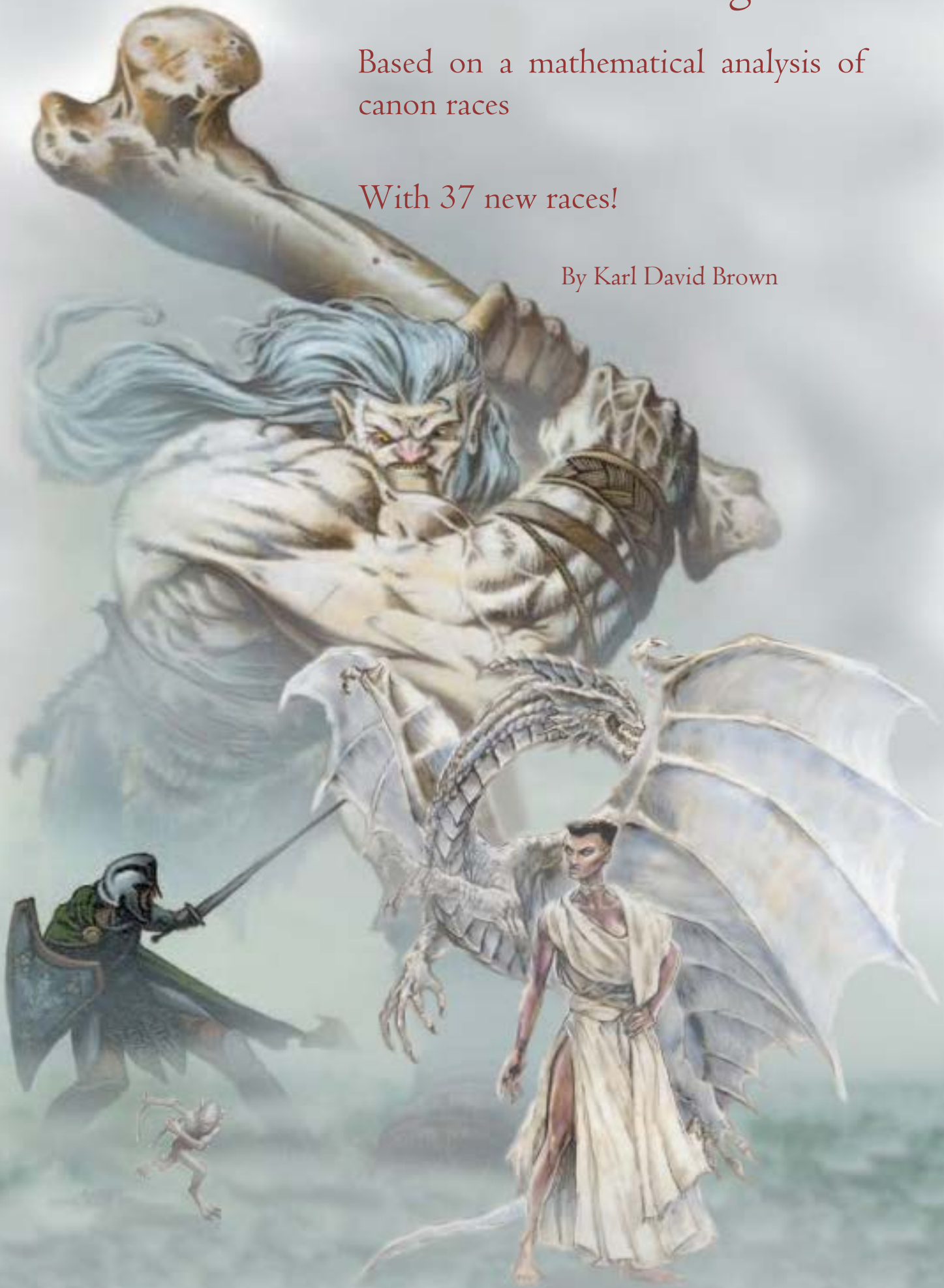


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The Tinker's Toolkit: D&D 5th Edition Race Design

Mathematical analysis of D&D and text by Karl David Brown

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THE TINKER'S TOOLKIT

This is a tool to help enthusiasts who love to tinker with the rules and create new content of their own. With a Tinker's Toolkit you can create quality new rules options for D&D. The toolkit was built by using mathematical analysis to take apart some D&D rules so you can reassemble the pieces into new options.

PART 1: INTRODUCTION

This is analysis of 5th edition D&D's underlying mathematics and system for referees to create new races and feats for their campaign settings. An appendix at the end gives you 37 new races in short form ready to play. This book benefits from three years of playtesting and development. It uses evidence from the Players' Handbook (PHB), Dungeon Masters' Guide (DMG), Elemental Evil Player's Companion (EEPC), Volo's Guide to Monsters (VGM), and the Turtle Package (TP) to determine how races are built. You may use this to create races for publication if I am credited as "Additional game design by Karl David Brown". I expect no other payment.

HOW IS THIS DIFFERENT FROM ALL THE OTHER FAN-CREATED RACES?

Dungeons & Dragons players have been using unusual races since the days of 1st edition, which had tens of magazine articles offering new races. Therefore it is unsurprising that we are seeing a lot of fan-created races for Dungeons and Dragons 5th edition (5e). Some of these look good and balanced, others are obviously over-powered, and some look fine but on deeper inspection are 'out'. This is because these races are usually created by using the Player's Handbook (PHB) races as a rough template in a 'monkey see, monkey do' fashion and relying on intuition to judge whether the traits and overall result are balanced. The problem is every edition of D&D is essentially a new game; some game systems have survived with only minor changes for *decades*. With a new game past experience from other 'editions' can be misleading and so intuition is flawed.

So how is this book different? In Part 2 I have mathematically analysed all the race and feat traits in the PHB, DMG, EEPC, VGM, and the TP and then reverse engineered a copy of the system Wizards of the Coast (WOTC) uses in-house to create PC races. Reverse engineering is dependent

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on the evidence gleaned from the original, the more evidence the more accurate the copy. Here I have spent hundreds of hours applying algebra to a huge amount of evidence from the PHB, DMG, MM, EEPC, VGM, and TP. This mathematical analysis of the evidence provides a basis beyond intuition to evaluate new races and greater creative freedom than using existing races as templates. **I'm confident races produced by this process will be balanced.**

Has this been play-tested?

This project began in October 2014. In the years since then the system has been critiqued and used during the construction and building example races phases through forums at WOTC, RPG.net, RPG Geek, and Enworld. Additionally there has been *over a thousand* player/hours of live testing at Gatekeeper Games Melbourne Australia.

But there is no system!

Some people do not think WOTC has a secret in-house system for me to reverse engineer. I believe that there is a system because WOTC is investing millions based on detailed math created and maintained by a team that is likely to have a shifting membership over several years, WOTC is going to want records to ensure the continuity of future products. Probably information gleaned from practical play concerns etc. are fed back into the *evolving* document at WOTC. Therefore what I have reverse-engineered is a 'snapshot' of that evolving document taken at the time TP was released. If I have reverse engineered a WOTC system my work should be able to predict new material by WOTC. My confidence is buoyed by beta version predicting that some traits were zero point before the release of Waterborne Unearthed Arcana wherein the designer's confirmed they used zero point traits which they call 'ribbons'. I also predicted negative ability score adjustments which were seen for the first time in VGM. Furthermore the beta version accurately priced most of the EEPC races when that document was released. Also *most* of the races and subraces in the Sword Coast Adventurer's Guide are priced very close my target value of 12 by the next version of the beta (Mean average: 11.58, Median average: 12.00, Mode Average: 12.00, Standard Deviation: 2.77). Similarly, a later beta version was also on target for most (9 of 12) VGM races and subraces (Mean average: 13.46, Median average: 12.00, Mode Average: 12.00, Standard Deviation: 4.93) with the biggest issue being the old price of magic resistance (now corrected by extra evidence from VGM).

A BOOK IN FOUR PARTS

You are reading **part 1**, a general introduction.

Part 2 presents the reverse engineered race creation system. All costs are relative to +1 in an ability score (2pt). I have sifted all the PHB, DMG, EEPC, TP and VGM races and feats, as well as key levels of some classes, and relevant portions of the DMG and MM for evidence. Conservative referees seeking to emulate canon races should stick to this part.

Part 3 contains rules that are NOT part of the reversed engineered system. Rules from the PHB and DMG are applied in new ways to open up a greater diversity of PC races. The rules in part 3 are by their nature experimental and using them is essentially a playtest. That said part 3 has had 3 years of playtesting.

The tables of traits for parts 2 and 3 are at the end of the article.

Part 4 briefly discusses using unusual races at the gaming table.

After part 4 is an appendix of example races in short form.

DEFINITIONS & ABBREVIATIONS

2e: Advanced Dungeons and Dragons second edition.

5e: Dungeons and Dragons 5th edition.

DMG: Dungeon Master's Guide.

DPR: average damage per round as described in the DMG monster creation section. Often also used for *effective* damage per round.

EEPC: Elemental Evil Player's Companion.

HD: hit die.

HP: hit points.

JL: see joining level.

Joining Level: in part 3 some races do not join play until other PCs have reached a given level.

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LA: see level adjustment.

Lesser trait: a trait worth 0pt. Most PHB races have 2 lesser traits, more than 4 is rare, and the maximum for LA0 races is 6.

Level adjustment: in part 3 some races are equivalent to a number of class levels.

Level requirement: some traits are not granted until the sum of the character's levels reaches a threshold. Some of a drow's racial spells in the PHB are like this.

MM: Monster Manual.

OA: Out of the Abyss

PC: Player character.

PHB: Player's Handbook.

PHE: Player's Handbook Errata released June 2015.

Point: the basic unit of value, 2 points is equal to +1 to an ability score in value.

Progressive trait: the trait increases in power as the character gains levels. The dragonborn's breath weapon is an example. Another example is a spell that can be used more often as the PC gains levels.

Pt: point.

Racial Feat: a feat only available to a particular non-human race and not available at first level.

SC: Sword Coast Adventurer's Guide

Speech: in part 3 the ability to speak is rated from 1 (mute) to 3 (human). If not noted speech is 3.

Tool use: the ability of the race to use tools and wield weapons. In part 3 this is rated from 1-5. If not given tool use is 5, same as a human.

Traits: are any game feature of a race that is not an ability score adjustment.

VGM: Volo's Guide to Monsters.

WOTC: Wizards of the Coast.

PART 2: THE REVERSE ENGINEERED SYSTEM

The core of the system is simple, every race is made up of 12pt worth of score adjustments and traits and 1 to 6 zero point lesser traits. The bulk of this article provides step-by-step guidance and goes into a lot of detail, but really you just need to add up to 12. Things can get a little more complex for powerful races as described in part 3. A small number of traits, particularly some which deal damage or help soak it up, require calculation to determine their price.



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How did I set point costs?

All costs are relative to ability scores. I arbitrarily set +1 ability score = 2pt. We know from the human that a race is 12pt and the variant rule for humans gives us the means to price a few other items. For example at first level feats are worth 6pt. If we place in the known items then we can try to find values for the unknowns so that all races add up to 12pt and all feats are worth 6pt.

Essentially it's a giant algebra problem:

- A=Ability score adjustment, we set A=2
- R= any race
- Human is $6 \times A = R = 12$
- Variant Human is $2 \times A + F + S + L = R = 12$. Where F is feat, S is Skill and L is extra language. We know $2 \times A = 4$ Therefore $F + S + L = 12 - 4 = 8$. The allowed range for each of values for these three traits is 0 to 8 at this stage.
- Half elf is $A \times 4 + 2 \times S + D + Z + L = R = 12$. D is Darkvision 60ft, Z = fey ancestry. So $S + D + Z + L = 12 - A \times 4 = 4$. This also tells us S+L from the variant human equals 4 or less not 8 or less. The allowed range for these two traits is now smaller. Feats are included because the human variant can choose any non-racial feat, therefore feats are also race traits.
- As we continue to add more races and feats the allowed ranges for more traits are determined and those allowed ranges narrow.

The more traits a race shares with other races the more certain we can be of these cross-referenced point values. In some cases a similar approach was taken to some levels of a few classes.

The point values of some traits are solid and others are less certain. This is because there is only so much evidence available, particularly for infrequently used traits, I use a rating system to let you know how certain I am of the assigned point value. Additionally, the trait tables list page numbers for the evidence used to assign the values for each trait.

Why do you assume that all canon races are of equal value?

I make this assumption for two reasons:

Firstly, I believe WOTC would intend to design races that are equal at the table. This view is supported by press releases and communications with fans wherein WOTC consistently reflects the fan-base's obsession with 'balance'. As fans we can argue if they succeeded *forever*. This issue is compounded because every group plays differently, even if the rules are identical the mix of challenges and how they are presented varies from group to group.

Secondly, the assumption makes it possible to replace most guesswork with math. Using this assumption I remove much of the 'why' of judgment, and judgment is really just another word for guessing; guessing what WOTC's designers were thinking. By making this one assumption I can avoid hundreds of other judgment calls (guesses). Where possible I limit guesswork by using math. If I do not make this assumption the math CANNOT be done and I am reduced to guessing the values of *every* trait like everyone else then arguing the relative merits of traits *qualitatively* and *endlessly* like everyone else.

If I assume that canon races are not worth the same amount of points my project cannot be done at all.

Why did I price this or that trait the way I did?

Your experience and reasoning may lead you to believe that a particular trait is more or less useful in play than my pricing would indicate. The problem is everyone has differing opinions about these relative values. This is why I use math to remove as much of my own judgment as possible, give you a rating of confidence in evidence, and list the page numbers for the evidence I used for each trait. After all that I still tell you to change anything you don't agree with.

BUILDING FEATS

NON-RACIAL FEATS

This is easy, add up 6 points of traits (arbitrarily I allow up to 6.5 when creating new feats). Never include more than one +1 to an ability score. Never include any trait with a negative point cost. Only use traits available at 1st level.

RACIAL FEATS

Racial feats cannot be taken at 1st level.

These are feats only available to a specific non-human race. Items available at up to 4th level can be used. A racial feat is built with 4pt (arbitrarily I allow up to 4.5 when creating new feats) not 6pt.

Feat prices: Interestingly, my analysis indicates a feat is worth 6pt at first level and 4pt at 4th level.

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BUILDING PC RACES

CONCEPT

The PHB assumes PCs are going to be roughly like humans: about human-sized, have hands, be able to speak, and be low power. Your concept should be within these limits. You can convert a monster stat block, recreate a race from a previous edition, or create something new. Part 3 contains experimental (but backed by extensive playtesting) ways to deal with bigger, Tiny, mute, powerful, and non-humanoid creatures by applying canon rules in non-canon ways.

NO STAT BLOCK?

If you are building a PC race from a previous edition or something out of your own imagination then just ignore references to consulting stat blocks and assign traits to match your concept.

5TH EDITION MONSTERS

You can convert a monster for which a 5th edition stat block is available. Around Challenge ¼ is perfect. Monsters as low as Challenge 0 can be converted to PC use. Some higher Challenge creatures could also be converted using just part 2 but this depends more on the details than the Challenge rating. Where several versions of a monster are presented and these represent different occupations use the most basic version. Where the versions are sub-races you can use them to create playable subraces. If monster versions represent different age categories generally you should choose the youngest adult or adolescent.

RACIAL ABILITY SCORE ADJUSTMENTS

If the race appears on DMG282 use the adjustments there as a starting point. Ability scores are priced at +2pt/+1 ability score and -2pt/-1 ability score.

Use the monster's ability score modifiers as the PC ability score adjustments. Unlike PHB races, converted monsters often have negative adjustments to ability scores. There is a canon race, the Kobold in VGM, with negative adjustments now as well.

Regardless of which of these methods you use the values may change later.

Why monster modifiers as PC ability score adjustments?

An analysis of the MM turns up some interesting facts. Monsters generally have fewer traits than in 1e, 2e, and 3e. Effective level is the level where a party of monsters has a 50% chance of beating a party of PCs; a deadly encounter. Monsters have more hit points than a PC at the same effective level. Monsters frequently have higher ability scores than a PC at the same effective level and also deviate further from 10. These extra hit points and ability scores are part of the trick to making monsters with fewer traits a tough fight for the PCs.

Secondly, PHB races hover around an average of +0.5 /ability score. We want to keep our new races' ability score adjustments close to +0 and positive if we can.

Using the ability score modifiers effectively halves the ability score adjustment you would get from ability score minus ten. This brings us closer to zero and makes PC versions of races have score values more similar to PHB races (at least for those built with Part 2).

ABILITY SCORE RANGE

The canon rule in the PHB is that the range of ability scores for PCs is 1-20, even for puny kobolds from VGM. However, whoever heard of a Strength 9 Awakened frog?

The following rule regarding **Strength for Tiny characters** is *optional*, my own creation, and is definitely outside of what WOTC used to create the PHB, but also strongly recommended. It may complicate character generation but it prevents non-sensical seeming strength scores. During play misfortune can reduce a Tiny character's strength score below these minimums.

- For Tiny characters allowed Strength ranges are determined by the stat block of the monster version or if a creature without a 5e stat block use the imagined average commoner for the race.
- If the monster strength score is 10 or more the range is 3-20.

Race analysis and creation

For Strength scores 9 or less see the table.

Tiny monster Strength score	PC min	PC max
1	1	2
2	1	4
3	1	6
4	1	8
5	1	10
6	2	12
7	2	14
8	2	16
9	3	18
10 or above	3	20

When you know the range and adjustments for ability scores check that ability scores within the ranges can be generated with the standard array. If not change the ability score adjustments.

What about Giants?

In most campaigns the usual maximum of 20 applies to ability scores. After 20th level a referee might allow increases above 20 using the variant rule DMG230 except to a maximum of 20 or the race's Ability Score in the MM +2, whichever is higher.

How the Tiny Strength score range table was calculated

Strength score minimum equals the monster score $\times 1/3$ round down (min 1) or 3 whichever is lower. Strength score maximum equals the monster score $\times 2$ or 20 whichever is lower.

TYPE AND TAGS

A PC version of a monster has the monster's Type and any Tags. These have no point cost and do not even count as Opt lesser traits.

AGE, WEIGHT, AND HEIGHT.

These have no bearing on game mechanics and might be gleaned from descriptive text sourced from material written for any edition of D&D or invented. For example, the 2e supplement 'The Complete Book of Humanoids' has tables for height, weight, and age for a number of humanoid races. Be aware however that the descriptions of some monsters have changed between editions.

ALIGNMENT

If you are converting a monster the alignment given in the MM is the one the race adheres to most often. For mortal races this is just a tendency but for extraplanar creatures deviation from the given alignment can be vanishingly rare.

TRAITS AND LESSER TRAITS

A table listing the prices for hundreds of traits is given at the end of this article. A lesser trait is simply a trait worth Opt.

All races must have languages, size, and land speed.

Languages: The default for PC races is to speak Common and one other specific language. Even if the monster version of a creature does not speak Common the PC version should speak Common or, if physically unable to speak, at least understand it (see Speech in part 3). Being able to speak an additional language (three total) is a lesser trait. If the player is able to choose a language this is also a lesser trait.

Size: Medium Size costs nothing and is the default (Opt, not even a lesser trait). Size does not include Reach. Default Reach is 5ft.

Land Speed: The default land Speed is 30 feet (Opt, not even a lesser trait). Other Speeds are traits. Land Speed can be zero but should still be noted and the price in points included in the design. However, land speed zero would not be recommended in most campaigns.

All of the following should be listed at this stage: natural armour, burrowing, climbing, swimming or flying speeds, skills (but PCs recalculate the bonus; these are assumed to be cultural or instinctive), vulnerabilities, damage resistances, damage immunities, senses (but not passive perception), languages, innate spellcasting, proficiency in all the armour, and weapons listed

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(cultural or instinctive), any natural weapons (but not the attack bonuses or ability score derived damage bonuses), any magic powers, any special reactions, and lair actions. Also list the race's natural armour, if any, (minus the monster's Dexterity bonus). Finally, list any save proficiencies the monster has. We'll trim or add to this list in the next step.

PC races do not get: legendary actions, multiattack, alignment, any equipment including worn armour, creature's ability score modifiers including Dexterity modifier to AC and bonuses on saving throws, hit points and hit dice, exact ability scores, challenge, and xp.

Why lesser traits?

Initially I assumed all traits had a non-zero value. However, as I proceeded with the analysis the points remaining within races for some traits shrank and shrank eventually becoming zero (see 'Darkvision below for an example). Increasing the granularity of the system by raising the point value of an ability score to much greater than 2pt *might* allow very small point values to be assigned to these traits. However, re-analysis would take tens of hours, may still end up with zero point traits, and make the system less user friendly by increasing the additions needed to create a race. Setting a limit on the number of lesser traits allowed effectively gives them a (very low) value anyway. Interestingly, as the first edition of this article was nearing completion WOTC released "Unearthed Arcana: Waterborne Adventures" wherein the designers confirm they use zero point traits, which they call 'ribbons'.

Why 6 lesser traits?

The mean number of lesser traits for PHB races is 2 and the lowest number of lesser traits is 1. Drow have the highest number of lesser traits with 5. If you decide you allow Drow to speak Undercommon, as Svirfneblin do, then Drow would have 6.

Darkvision

Many feel Darkvision is too useful to be 0pt. After-all there is a Darkvision spell and spells are worth points. I felt the same way. As I proceeded with the analysis I tried to keep some point cost on Darkvision, but then I processed the Half-Elf. This race contains a total of +4 to ability scores ($4 \times 2 = 8\text{pt}$) and 2 skills ($2 \times 2 = 4\text{pt}$). The prices for skills are backed by a lot of evidence, there is no room to move on this value. $8 + 4 = 12$, no points left over for the other traits. Since the other Half Elf traits, Darkvision, Fey Ancestry, and Extra Language, aren't going to be negative they all must be zero. I guess that WOTC's designer's felt that with so many ways to circumvent normal darkness available Darkvision just wasn't that much of an advantage.

NOTES ON TRAITS

Channel Divinity: does not appear on the trait table and should never be awarded as a racial trait.

Extra attack: this class feature does not appear on the tables and should never be granted as a racial trait.

Feats: when using the Part 2 rules only a race should not be granted more than one feat.

Damage Resistances and Immunities: a single damage resistance is a 0pt lesser trait and a single damage immunity is worth 0.5pt. However these traits are not simply additive. Determining the price of multiple resistances and immunities requires complex arithmetic and the resulting point prices are very high. These are covered in Part 3. The exception is resistance to radiant and necrotic damage having resistance to both of these rarely used damage types is priced the same as one resistance.

Hit die and hit points

Do not assign hit die to a race built with only part 2. Part 3 describes the use of hit dice for powerful races. Small numbers of hit points like that seen for dwarves are allowed.

Hit Points

Dwarven Toughness is worth 7pt but is basically half as good as the Toughness feat (6pt) and therefore should be 3pt right? I have spent hours failing to solve this. The problem comes about because the **evidence from WOTC is inconsistent**. There is either canon evidence or multiple lines of evidence for all dwarf traits for both subraces except Tool Proficiency and Dwarven Toughness. You can't shift points from Dwarven Toughness to other dwarf traits to make it worth half as much as the Toughness feat without making the Mountain Dwarf worth more than 12 (not allowed). **So a HP from a feat is worth less than a HP from a race. This is a nonsense solution but the only one that works.** I give up. Fortunately, this is the **only** instance where *direct* evidence is contradictory.

Natural Armour: If wearing armour over Natural Armour use the highest of the two ACs unless you have the trait of not benefiting from worn armour (like Tortles do). High Natural Armour has a required level but can be made a progress trait. Alternatively, the trait of never adding DEX to AC removes this level requirement.

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House rule: In most campaign worlds dragons don't stomp around in platemail. To emulate this if Natural armour is 15+DEX or better then it counts as wearing armour when interacting with class features (only). A 'naked' dragon can use the Defense Fighting Style for example. This is *not* derived from a WOTC rule and in fact contradicts a ruling by WOTC's designers on the Sage Advice site. The 15+DEX limit is arbitrary and higher than the published rule for Lizardfolk whose hide does not have this feature but lower than Tortles whose shells would seem to be equivalent to wearing a breastplate.

Natural Armour

The default natural armour is 10+DEX. The Lizardfolk and the Turtle provide two more data points. With three data points we can fit a binomial equation to get good values for the others ($pt = 0.05 \times AC^2 - AC + 5$). The value rises faster and faster as natural AC improves.

Despite this Natural armour is pretty affordable point-wise and the Turtle which has high Natural AC has restrictions. All this makes me worried that cheap Natural AC will produce overpowered tank races. Therefore I have arbitrarily assigned required levels (based on Dragon LAs) to higher Natural Armour to curb abuse and still allow high LA races to have good Natural Armour.

As an aside, the Turtle AC17 with no DEX added *had* to be 2pt after assigning the values to the turtles's other traits. However, the turtle's armour has restrictions. Significantly, the turtle never adds DEX to AC nor benefits in any way from worn armour (but can use shields including magic shields so it's not much of a penalty). Therefore Natural Armour of 17+DEX *must* be more than 2pt but we don't know how much more. Given that any bonus from Dexterity has already been paid for by the price for an ability score increase I suspect the extra cost is low. Therefore I *arbitrarily* added 0.25pt for each of the DEX bonus and the option of wearing armour to give a price of 2.5pt for AC17+DEX. This value was used in creation of the formula above.

Natural Weapons/Unarmed Strikes: To preserve game balance and D&D's built-in DPR progression these rules differentiate between an Unarmed Strike and Natural Weapons. Unarmed Strikes do 1d6 or less Bludgeoning, Slashing, or Piercing damage. Some other rules in the PHB interact with Unarmed Strikes, others with weapons. If an unarmed attack does 1d8 or better damage dice or a damage type other than Bludgeoning, Slashing, or Piercing then it is a Natural Weapon and rules that can be used with Unarmed Strikes cannot be applied. When adjudicating how Natural Weapons interact with other rules a Natural weapon is a Melee Weapon but is not a Light, Heavy, or Improvised Weapon. For example the benefits of Savage Attacker (PHB169) can be applied to a Natural Weapon because it is a Melee Weapon but the benefits of Tavern Brawler (PHB170) cannot be applied because it is not an Unarmed Strike or Improvised weapon.

All characters are considered proficient in any Natural Attacks for their race.

By default attacks are Strength based. Decide if any Natural Weapons or Unarmed Strikes of the race are Finesse this is a 0pt lesser trait. However there is a maximum allowed base damage for finesse weapons which varies by Size: Tiny 1 damage, Small or Medium 1d8, Large 2d8, Huge 3d8, and Gargantuan 4d8. Such attacks count as finesse weapons when interacting with other rules. Only pay for the highest damage Natural Weapons (see Part 3 for how Size interacts with Natural Weapons prices). Only pay for the highest reach of the creature's listed natural attacks. Very potent natural weapons can be made into progressive traits, pay the price for the highest amount of damage the trait will do (only) and determine the level required for all numbers of the same type of damage die up to the maximum. All of these are considered one trait, that is the other lower value attacks are not lesser traits.

Natural Attacks

The price of natural attacks was determined from eight sources. The Lizardfolk, Turtle, and Tabaxi races. The price for weapon proficiencies gives us evidence by damage die. The Tavern Brawler feat has two unique items sharing 3pt so 1d4 unarmed is worth between 0 and 3pt, to keep the tabaxi at 12pt a 1d4 natural weapon is probably worth 0pt. The Monk class provides further evidence for a low price for 1d4 and provides evidence for dice up to 1d10. The extra attack feature shared by many classes is functionally equivalent to x1.5, x1.75, x1.88 damage. Since the most potent weapon in the PHB does 2d6 (average 7) extra attacks gives us *rough* prices and level prerequisites for dice doing an average of 10-13 damage. Finally, for more potent damage dice a comparison to the average damage output of a party composed of the four base classes (cleric, fighter, rogue, wizard) at levels 1 to 20 was adjusted to remove the effects of extra attacks (ogres can be fighters too!). The natural attacks of a race will never outshine the damage dealing capability of a typical canon fighter. Thanks to SurfArcher (Doug Irwin) for the PC core class DPR analysis.

Multiattack does not appear on the table of traits, this is deliberate. Do not award Multiattack as a racial trait.

Per Day traits: as clarified for Drow Magic and Infernal Legacy in the PHE (and corrected in later PHB printings) for player characters ‘per day’ traits are recharged by a long rest.

Saves: If a PC receives the same save proficiency from race and class they receive no extra benefit.

Saves

Although most canon PCs receive two save proficiencies from their class and none from their race, I allow new races to have save proficiencies as traits. I do this for several reasons. Firstly, variant humans can receive a save proficiency as a racial trait by taking the Resilient feat. Secondly, not all canon PCs have only two save proficiencies (e.g. Resilient feat or the monk’s Diamond Soul). Finally, MM monsters have fewer traits than PCs and save proficiencies are often a key trait for their survivability; new races based on MM creatures often reflect this. Very weak races may need something to raise them to on par with PHB races and save proficiencies can serve this function. In part 3 powerful races are equivalent to class levels but lack the numerous features of classes; save proficiencies are frequently included as compensation.

All that said the PHB is stingy with save proficiencies. I created the rule that if a PC receives the same save proficiency from race and class they receive no extra benefit and no compensation. The lack of compensation for redundant proficiencies is seen in the PHB, for example a mountain dwarf fighter is not compensated for her redundant racial armour proficiencies.

Spells and spell-like powers: All cantrips are priced the same, 2pt. Unless noted all spells, except cantrips, are one use recharged by a long rest. If not listed in the tables apply the ‘uses’ multiplier from damaging powers for more frequent uses. Some spells are listed by name in this article’s tables.

For unnamed spells generic prices are given using the following rules: Spells can be cantrips, non-combat spells, combat spells (those like Darkness that can affect chance to hit in combat or provide healing but don’t damage). Any (non-cantrip) spell that does damage is treated as a ‘damaging power’, a category that also includes traits like fiery dragon breath. Finally, those that add to melee damage are priced the same as a natural weapon doing the highest DPR the spell could do but obtained at the level the spell is normally gained at (for example a spell that adds 1d4 fire damage (+2.5DPR) for 3 or more rounds to *any* weapon granted to a race with human-like hands should account for use with the most dangerous PHB weapon, the Great Sword 2d6 slashing, and therefore be priced like a DPR9.5 attack but would be gained at the level the spell is gained by a class).

Spell-like powers are abilities like a brass dragons sleep breath that are similar to a spell but differ in details such as range, area or targets, or frequency of use. For these price the spell then use the modifiers for damaging powers (divide by spell’s value then multiply by the power’s value).

In some instances you may consider making spells and spell-like powers progressive. This should only be done for gaining additional uses of the same spell/trait, making low level versions with lower range, area or targets, or if traits are *very* similar (eg. Invisibility and Superior Invisibility). Using progressive traits can help avoid making a race underpowered at low level.

Spells

The analysis of spells in the PHB and EEPC races and feats is fairly robust. I only had to tweak prices a *little* (<31%) for one race in EEPC and two races in VGM to get totals of 12.

Spellcasting: With the exception of some cantrips (like the high elf’s), racial spells are innate spellcasting. The (non-innate) spellcasting monster feature would use the same prices. However a better way to emulate the spellcasting MM trait is to not include spellcasting in the race and to note in the race’s description that many pursue a spellcasting class.



Race analysis and creation

Spell prices for races not classes

The prices for spells are based on an analysis of races and feats but NOT classes. **Do not use these prices to design classes.** I suspect that all spells for classes are priced at 2pt at the class level a wizard obtains that spell level. This makes combat spells about twice as expensive for races and feats compared to classes. Damaging powers able to affect multiple targets are about 10x more expensive as part of a race or feat compared to a class. *IF* I am correct then this ensures niche protection for spellcasting classes and class contributes more to combat effectiveness than race.

Speed

Regarding land speed 25, the -3pt value comes from solving all races with 25 speed to equal 12pt. Similar situations apply to speeds 35 and 40.

So what about the asymmetry? Speed 35 is worth +1pt so why is speed 25 worth -3pt. Well although the values for these speeds were defined by solving for races and feats for 12 and 6pt respectively, asymmetric values also makes sense. Why? Two reasons, firstly is most PCs are speed 30 you are the one that can't escape from the monster when the party runs away. Being speed 35 over speed 30 has almost no advantage in a typical running away situation. Secondly, speed really is a measure of 'opportunity space' in combat. The allies you can help and foes you can reach are defined by an *area* with a radius equal to speed. Speed's utility is related to the square rule of geometry. The area gained by a radius of 35 rather than 30 is much smaller than the area lost by your circle having a radius of only 25.

With this in mind the absence of direct evidence for speeds under 25 or over 40 was overcome by fitting a square rule equation to the speeds we have evidence for and using this to extrapolate other speeds. The VGM Aasimar and Aarokocra give us a pretty good fix on the price of flight, a price that supports the calculated price for speed 50.

Sunlight Sensative: Two different values are given for this trait. I recommend you use 0pt.

Sunlight Sensative

Why are there two values? Based on an analysis of the PHB and EEPC was priced at -7pt. While this value is rated 'F' for fit (see Types of Evidence later) with the other trait values for the Drow and cross-referencing with other PHB and EEPC races the evidence is pretty good. Much later I subjected the SC Duergar to this system and was pleased that a value of 12 resulted, but with one caveat; Sunlight Sensativity had to be 0pt. The evidence from the Duergar is just as good as that of the Drow. A couple of possible explanations spring to mind. Firstly, while the Drow seem to show up everywhere perhaps the designers thought Duergar would mostly be used in Underdark campaigns. Secondly, perhaps WOTC initially thought that disadvantage on virtually all important rolls while in daylight would be a huge handicap but after a couple of years of people playing found that actually it was not much of a hindrance, perhaps because most adventures occur indoors. Therefore while it was too late for the Drow they 'fixed' this for the Duergar. It should be noted that if the approximate point value of levels is considered then by the time the Drow gets all her racial spells at 5th level her point total is only about 8% higher than other characters no big deal.

More on pricing traits

For some traits a combination of these approaches was used to set the price. The more lines of evidence the better. Look closely, are there multiple spells, race traits, or class features the unknown trait is similar too? If so, evaluate based on each and take an average.

The first method is to treat the trait like a spell. This works well for magical effects, flight, and other super-human abilities. Combat and non-combat spells have different costs and the different class levels where the spell is granted as shown on the traits table. Combat spells are those that hinder foes in combat (like Darkness). Damaging spells are treated as damaging powers (see below), but not those that do damage. I price healing spells as 'combat' because of their effect on the outcome of combat. If the race trait has a longer duration, affects more targets, adjust the price for area, range, and multiple uses as done for damaging powers. If the trait's effect is less powerful than the spell reduce the spell level but never reduce by more than one. The tricky part here is judgment. For example, if the the most similar spell lasts 24 hours and the trait is at will for one hour then they are *probably* equivalent at the table. The Duergar (SCAG104) tells us if a spell that normally affects one target is 'self only' this does not change the price. The price given for spells other than cantrips assumes one use per long rest, for more uses you *might* increase the points to that of one spell level higher or apply the uses modifier from the damaging powers table.

If a the trait is damaging power like a breath weapon or damaging spell, determine the DPR (DMG278) and see the section on damaging powers below. Note that 'damaging powers' do not interact with Extra Attacks gained by some classes and therefore are cheaper than Natural Attacks.

If a trait modifies damage from melee or missile attacks figure the effective DPR (DMG278) based on addition to the most damaging attack the trait can modify. For example for Medium humanoids for melee attacks this is a great sword 2d6 (average 7 damage), for Small 1d8 (4.5), unless there is a more damaging natural weapon the attack can be applied to. Next compare DPR to natural weapons to obtain costs and level attained. If the DPR calculation used scaled weapons or natural weapons subtract the points for natural weapons or Size from the price of the trait but do not change the level gained. Where the level gained is high consider making the trait a progressive one as I have done for the Hobgoblin's Martial Advantage.

Alternatively, you can compare to class features. I will not do a full analysis on the classes, however I can reveal that a class level after first level is worth 11pt or 10.5pt at 5th level or above. Part 3 gives you the price for HD to subtract, whatever is left over has to account for the *new* features a class gains at that level. However, races and classes price traits differently and this method should be used sparingly and with caution. Part 3 discusses using Monster Features as PC traits.

DAMAGING POWERS

Damaging powers are a little more involved. To price these follow three steps: determine DPR, price DPR, then apply multipliers to determine final price.

Determine DPR

The average damage per round (DPR) is calculated over three rounds as per DMG278 except do not double for area attacks.

Price DPR

The DPR price can be found by looking it up on the Damaging Powers table. If between categories move up to the next highest DPR given, for example DPR2.125 has the point value given for DPR2.5.

Apply multipliers

Multiplying the DPR *price* by modifiers for:

- Area of effect.
 - If no area of effect (just one target): x1.
 - If 'all within 5ft of the caster': x2 (based on EEPC thunderclap).
 - If effects an area determine the number of targets as per DMG249 except do NOT round, then multiply this number of targets by 10. The result is the modifier for area.
- Range to the furthest point away a foe can be effected (in feet, for example a dragonborn's 15ft cone breath has zero range to point of origin but 15ft range for this purpose). The multiplier is given on the tables
- Uses. The multiplier is given on the tables.

Finally, round *down* to a multiple of 0.25pt. The result is the final price of the power.

In part 3 there is a discount to *some* damaging powers if a race has LA4 or above.

Progressive damaging powers.

Some powers like the dragonborn's breath that do increasing amounts of damage at each tier of play, range, area, etc remain the same price at all levels. For these traits first determine when the trait will reach the maximum damage (that listed for the trait in the MM). The base point price of DPR is listed at 1st 5th 11th and 17th levels, choose one of these levels. Choosing a higher level will lower the point cost. Determine the base point price at the selected level. Next determine the DPR with fewer numbers of the same kind of die. Finally, look for levels where that same base price will purchase the DPRs for those numbers of dice.

Using progressive traits will avoid making the race under-powered at low level. However, I advise caution with powers with a DPR greater than 19.7, equal to the lowest DPR of the four core classes (the cleric) over a 32 round 'adventuring day'.

Progressive powers

Note that the system does not discriminate between progressive and set powers, unless the power is a spell the cheapest version will be the one that grants the maximum DPR at 17th level. The disadvantage of taking spells with fixed, rather than progressive, DPR is minimised in the PHB, DMG, and EEPC races by only using low level spells of low price.



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FLIGHT, SWIMMING, CLIMBING, AND BURROWING

None of the PHB or DMG races have any speed other than a land speed. Comparison to spells, the druid wildshape, aasimar in VGM and the aarakocra (EEPC5) enable us to price these traits. Care must be taken in this edition of D&D when allowing flying or swimming speeds at 1st level. It is telling that the aarakocra was barred from official organised play sessions. The levels at which PHB only characters *can* gain *good* access to these speeds is:

Flying 6th

Burrowing 5th

Races with flying or burrowing speed should have the following warning:

“Having a (flying/burrowing) speed before (6th/5th) level is exceptionally effective in certain circumstances and exceedingly dangerous in others. As a result, playing a (race) requires special consideration by your DM who may disallow this choice.”

These speeds are very expensive at first level. Delaying acquisition can lower price but can cause some consternation as these movement types are key features of some races. One solution is ‘Optional Joining level and traits’ (see below). Another option is to include cheaper traits representing restricted use. Perhaps a creature gains Amphibious at first but must wait for the Swim speed. At 1st level wings might enable a PC to break her fall acting like featherfall or have endurance limited to one minute (effectively the same as used for the aasimar in VGM).

ASSIGNING THE TARGET POINT TOTAL

For races playable at first level the target point total is 12pt. Powerful races are covered by Part 3.

ADJUSTING THE ACTUAL POINT TOTAL

You now need to remove or add traits so that the point total is exactly 12. In practice this can be tricky so any value from 11.25 to 12.5 is fine, an arbitrary but small range used in playtesting.

Generally, you should not change the creature’s land speed. However, the EEPC Deep Gnome is 5ft faster than the MM version so there is precedent to change speed by 5ft.

If you decide to change the ability score adjustments then try to bring the adjustments closer to zero if you can without the result being ridiculous.

If the race appears on DMG282 try to retain the traits listed on that page including the ability score adjustments. However, we know from the PHB races that PC versions can vary from what is presented on DMG282.

Generally, skills, armour, weapon, and save proficiencies are good candidates for removal while free choice skills, weapon and tool proficiencies, and feats are good choices for additions.

WEAK HUMANOIDS

Some creatures are so weak that you must find a lot of points of extra traits for the PC version. These suggestions are typically needed for creatures Challenge 1/8 or less.

PCs of weak species are exceptional individuals. Consider removing negative ability score adjustments. Small creatures can even have Str+0, gnomes are Str+0. Next add a free choice feat if there are at least six points left. Then consider free choice skills. Finally, add weapon proficiencies to use up any leftover points. Use the phrase *“**Exceptional individual:** Your unusual past that has driven you away from the usual life of your kind is represented by (a number of feat, skills, weapon proficiencies) of your choice”*.

POWERFUL MONSTERS

Most of the monsters in the MM are designed to challenge the PCs; accordingly, the stat blocks usually represent mature veteran combatants of their species. Don’t believe me? Try pitting a 1st level Drow PC against the MM version. A 1st level PC isn’t a ‘veteran’ and does not have to be

Race analysis and creation

mature. While PC's usually aren't children, teenagers regularly took up arms in the real Medieval period. All this justifies a monster PC's starting off weaker than the MM statblock.

Ability Scores: Consider reducing *positive* ability score adjustments. Assuming MM monster has gained equivalents to level based bonuses to ability scores can account for much of the MM monster's higher ability scores. This being the case subtracting up to Challenge/2 (round up) in total is easily justified.

Traits: while some traits hold their value at all levels, some lose value at higher levels. Where you can, delay the level traits are gained to reduce cost. In some cases delayed traits can be made progressive.

If you still cannot create the powerful race you need to step outside the reverse engineered system and use rules from Part 3.

TYPES OF EVIDENCE

There are several methods by which point values were set for traits and new rules created. Where a trait is composed of a number of components (such as damaging powers or fast flight) use the worst component evidence level. From most certain to least these are:

Canon (C): this is something directly out of the core books. Not only are the individual traits found in the PHB, they are also combined in ways seen in the PHB. In race creation, only the base races to which subraces are added, subraces, and feats are at this level.

Primary (P): the point cost of these items relative to +1 ability score can be gleaned directly from the the PHB or a canon source of races and feats.

Cross-referenced (X): these traits are used multiple times in the canon races and feats. They have been given the same value across multiple canon races and/or feats all of which have been 'solved' to meet 12pt or 6pt respectively. Alternative solutions may be possible therefore the relative prices given here may differ *slightly* from what WOTC uses but probably not by much because of the numerous constraints on the possible values.

Fit (F): After all the traits for which primary and cross-referencing determines values there are some canon races and feats that still have one or more unique items. These are assigned values so that the total for a race equals 12 and for a feat 6. With only one usage we are less certain about the prices of these traits.

Inferred (I): This trait is not found in any of the canon races or feats but has similarities to known items or has a price otherwise inferred. At this time this includes class features because I have not performed a thorough analysis of the classes. Also at this rating are new rules that do not break WOTC's system but use existing systems in new ways including most rules in part 3.

Novel (!): This trait is unlike any traits in the canon races and feats. The price is a guess. Sometimes the difference between this level and the one below, broken, is a matter of interpretation of the PHB text. Two seemingly mundane trait types that have this rating are most reaches and extremes of speed.

Broken (B): This rule actually breaks the rules set by WOTC. Examples include a trait mimicing a 9th level spell usable at 4th level, a Large size at 1st level, or a trait that grants a bite for 4d6 damage at 1st level.

SAFETY STAR RATING

Some races will be built on solid evidence, for others we are not as sure of the exact trait values. To help you judge races I have a star system. Like the hotel and car safety scoring systems, races range from 0 to *****. Additionally, the star system could be used to communicate to players what races you are going to allow, you might for instance only allow races rated 3 to 5 stars. A

race's star rating is determined by the evidence level of its most uncertain trait. Finally, add a ½ if the race contains 6pt or more of P or C traits.

0 Flawed (B): This race actually breaks the rules set by WOTC's race creation system. Many fan created races on the net are at this rating.

* **Experimental (!):** Contains one or more traits that are a products of intuition. It does not break the rules of WOTC's system. Very few fans extend the game system in new directions based on analysis of existing rules so this level is actually rare among fan created races on the net.

** **Playtest (I):** This race contains uncertain traits. It *probably* does not break the rules of WOTC's system and there is a chance that point total is out. Alternatively, the race uses rules from part 3 of this article that use existing canon rules in new ways. Many better fan created races on the net would be at this level. Since many races require traits for which we don't have very good evidence or require rules from Part 3, many races created with this system will be at this level.

*** **Typical (F):** This race contains at least one trait that we do not know the exact value of and does not break the rules of WOTC's system. Conservative fan based races created by using PHB races as templates can reach this level. A deeper understanding of WOTC's system obtained by reverse engineering allows greater design freedom while still remaining at this level. Many more conservative designs created with this system will be at this level. If not canonised by the PHB the builds for all elves, halflings, gnomes, and half-orcs would be at this level.

**** **Safe (X):** The races traits are all one for which we have very good evidence. Only by deliberately limiting yourself to X or better traits are you likely to create a race with this rating. If not canonised by the PHB dwarves, tieflings, and dragonborn would be at this level.

**** ½ **Very Safe/Canon (P or C):** The race has no uncertain items, all the traits can be valued by direct statements in the PHB. Races created using only C or P traits will be rather bland. Of all the PHB races only the Human reaches this level without canonisation by the PHB. By definition these races qualify for + ½ and therefore all end up with a final rating of *****.



House-rules ethos

In the end some of you are going to disagree with some of the values presented here. Even in Part 2, where I am deriving values from canon evidence, I cannot account for the reality of your group and how you play. As with the canon works or anything else, if you want to change anything here, do it!

Race analysis and creation

Core PHB races

These are abbreviated summaries are intended to show how canon races were created with the 12pt+lesser traits skeleton. In the full analysis the same was done for all canon races in the DMG, EEPC, VGM and TP.

Human: 6x+1 ability score (12). Lesser Trait: one language is free choice

Human Variant: 2x +1 ability scores (4), feat (6, a feat is worth only 4 at 4th level), skill (2). Lesser Trait: one language is free choice.

Dwarf Base: +2Con (4), Speed 25 (-3), Weapon proficiencies (Martial melee x2 (1), Stone cunning (0.5), advantage on saves v. poison (0.5). Lesser traits: darkvision 60', simple melee proficiencies x2, resistance to poison, Tool proficiency.

Hill Dwarf: Wis+1 (2), +1hp/level starting at first level (7).

Mountain Dwarf: +2Str (4), light armour proficiency (4), medium armour proficiency (1)

Elf Base: Dex+2 (4), perception skill (2). Lesser traits: Darkvision 60ft, fey ancestry, trance.

High Elf: Int+1 (2), 2x martial melee and 1x martial ranged 1 weapon proficiencies (2), cantrip (2). Lesser traits: 1x simple ranged weapon, extra language.

Wood Elf: Wis+1 (2), 2x martial melee and 1x martial ranged 1 weapon proficiencies (2), speed 35ft (0.5), mask of the wild (1.5). Lesser traits: simple ranged weapon proficiency.

Dark Elf: Cha+1 (2), sunlight sensitivity (-7), weapon proficiencies 2x martial melee and 1x martial ranged (2), cantrip (2), 2x combat spells each gained two levels after a wizard gains access to that spell level (3.5 each). Lesser traits: another 60ft of darkvision.

Halfling Base: Dex+2 (4), Small size (-1), Speed 25ft (-3), Lucky (3.5), Brave (2), Halfling Nimbleness (4).

Lightfoot Halfling: Cha+1 (2), Naturally Stealthy (0.5). Lesser traits: nil

Stout Halfling: Con+1 (2) Advantage on poison saves (0.5). Lesser traits: resistance to poison.

Dragonborn: Str+2(4), Cha+1(2), Breath weapon (6). Lesser traits: damage resistance

Gnome Base: Int+2 (4), Small size (-1), Speed 25ft (-3), Advantage on Int saves against magic (1), Advantage on Wis saves against magic (1), Advantage on Cha saves against magic (1). Lesser trait: darkvision 60ft.

Forest Gnome: Dex+1 (2), cantrip (2), speak with small beasts (5). Lesser traits: nil

Rock Gnome: Con+1 (2), artificer's lore (1), tinker (6). Lesser traits: nil

Half Elf: Cha+2 (4), +1 to two other ability scores (4), two skills (4). Lesser traits: Darkvision 60ft, fey ancestry, extra language.

Half Orc: Str+2 (4), Con+1(2), Intimidation skill (2), Relentless Endurance (2), Savage Attacks (2). Lesser Traits: Darkvision.

Tiefling: Int+1(2), Cha+2(4), 2nd level combat spell cast at 3rd level (3.5), Hellish Rebuke as a damaging power (0.5), cantrip (2). Lesser Traits: Darkvision 60ft, resistance to fire damage.

Dragonborn: Str+2(4), Cha+1(2), Dragonborn breath weapon (6). Lesser traits: damage resistance.



Race analysis and creation

PART 3: OVERCOMING THE LIMITS

PLAYTEST

The rules in this section are not part of the reverse-engineering of WOTC's system.

The PHB is designed to support humanoids of Small or Medium size and lower power level as PCs. The reverse engineered race creation system is bound by these limits. This section contains rules to overcome these limits. These rules re-purpose *existing* D&D rules and math as a basis but are NOT something WOTC uses. This section has been playtested for over two years, mostly at low levels.

MONSTER FEATURES AS PC TRAITS.

Monsters frequently have features that do not appear in the canon PC races and feats. Most are listed in the DMG (DMG280) and have been priced in the table. These features were designed for monsters, not PC use, therefore they have been placed in Part 3 to indicate that they are more experimental.

Pricing monster traits as PC traits:

How to determine the price of traits that add to DPR has already been discussed.

If a feature adds to effective attack bonus point cost is half the bonus. Evidence type I

If a feature adds to effective HP determine points as per lowest HD(s) that rolls that amount or more. In many cases the effective HP bonus is given as a % of HP, in these cases we need to account for the fact that PCs of the race will have differing HP and gain HP with levels. Determine the average HP for the race at 20th level assuming average rolls except the first class level that is maximum HP. Assume any class levels used d8's for HD (the most common HD type). Next figure out the effective hit point increase based on this number using the cost of the smallest number of HD that can cover the effective HP gain. Evidence type I. A feature that changes effective HP can create a huge negative price is also effectively progressive. These large negative prices are an outcome of races paying for everything at once (unlike classes) and the difference in design objectives for Monsters and PC races. If possible very **large negative prices due to features altering effective HP should be countered with traits that are either progressive or have level requirements** to avoid overpowering the race at low levels (see Gorbel below for an example). Progressive Natural attacks or damaging powers are an obvious counterbalance you could use; be careful however extremes in this approach will create 'glass cannons'

If a trait does not effect Challenge do not assume it is a lesser trait, though it might be. Use the guidelines in Part 2 to determine the price. Evidence type varies.

Shapechanger

Pay highest priced AC, Natural Weapons, and Size/Tool Use only. All other traits are priced normally even if they are not available in all forms.

DCS OF RACIAL TRAITS

For PC races the DCs associated with traits should be 8 + Proficiency bonus + ability score modifier. The proficiency bonus for monsters is given on DMG274. Subtract (8 + Proficiency bonus) from the monster version's DC to determine the value of the ability score modifier. Where two or more ability scores could have been used pick one that makes sense, for example Intelligence for a mental attack.

OUT OF COMBAT: DISADVANTAGE AND INSPIRATION

This rule is essentially a re-purposing of the optional rule to treat lingering injuries as flaws (DMG273).

The point prices for Size/Tool Use combinations are calculated from the damage output of the weapons they can use. Outside of melee non-humans can be very different to humanity and we don't want to write a library of special case rules to cover marine creatures on land, awakened animals trying to pick pockets, etc. Nor do we want to start trying to price all the disadvantages faced by those with no hands, unusual needs, who are mute, or have odd body shapes, as traits without evidence from canon rules to guide us. We need a separate alternative system.

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Fortunately, we are given two general tools for players who play within the limitations of a race: Disadvantage, and Inspiration.

- Use Disadvantage when the race can do something but with difficulty.
- When a race can't do something say 'no' but *if* this prevents the character from taking an action critical to survival or achieving important goals award Inspiration. Inspiration is explained as the character trying harder to prove themselves useful.

Awarding Inspiration when the handicap becomes critical compensates the player in proportion to how often the handicap is actually detrimental during play.

Specific examples follow in the sections below on Size and Beasts.

BEASTS AND OTHER ODDITIES

There are issues if you cannot speak or wield tools. Whenever the limitations of your race place you in danger or prevent you from doing something critical your referee might award Inspiration (PHB p125). For example an awakened panther might be rewarded Inspiration for not being able to open a door to a room where the rest of the party was losing a fight but not if the door went into an inn on a warm summer night.

SPEECH

Not being able to talk can cause communication issues that could occasionally be worth Inspiration. You might understand languages without being able to speak or write them. Speech is characterised into three categories:

1. If you can't vocalise at all then you can't cast spells with a verbal component and spellcasting classes are not recommended. You can still learn languages and understand them, just not speak them. (twig blight, crawling claw)
2. If your natural form can't speak humanoid languages then for spells with verbal components assume you are able to translate the arcane formulas into noises you can make. If shape-changed into a form that cannot make your natural range of sounds you cannot cast spells with verbal components until the effect ends, even if your temporary form can speak humanoid languages. (chimera, chuul, manes).
3. You can speak humanoid languages and use words for somatic components. If you are polymorphed or shape-changed into a form that cannot sound out words you can't cast spells with somatic components until the effect ends (human, awakened animals, silver dragon)

Telepathy and spell casting: like speech telepathy is another way broadcast symbolic information. I personally rule that a telepathic broadcast to all in range is equivalent to speech for verbal components. As well as reflecting magic that responds to symbols and not air blowing out of lungs this also makes mute telepathic races more fun to play.

TOOL USE

If you have no hands or an odd body-shape armour is usually no problem, exotic barding can exist in D&D, only oozes, trees, or gas monsters would be exceptions. Even then the yarn-bomb craze tells us that tree chainmail is possible. You may need help to get in or out of armour (see below).

You cannot begin play with equipment you cannot use in your natural form (gain its value in coins instead), nor proficiencies in weapons, shields, or tools you cannot use in your natural form. You do not gain any class features you cannot physically do in your natural form, for example a frog rogue cannot use ranged or finesse weapons and therefore does not get Sneak Attack. Similarly, a dragon fighter can only use one of the Fighting Styles, Defense, because she cannot wield weapons nor use a shield. You are not directly compensated for this, you just lose these benefits. Though you may not be able to put on armour and other worn gear you can still use them and therefore gain these items and proficiencies etc.

For those without hands a spell focus can replace most material components and can be simply grasped or worn. I would assume you can interpret somatic components into complex sets of

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movements you can perform in your natural form. If you can't write you cannot write into a spellbook, to be a wizard you must have learned to cast *Mage Hand* from your teacher's book before finishing your studies to reach level one. Players are encouraged to be creative with somatic and verbal components. An chimera might roar to cast *Power Word Kill* and a dragon might 'strike a pose', arch her neck, and breathe out *firebolts*.

For weapon and tool use rate the creature into one of the below categories:

1. Paws, mouth, or similar. Unable to use any weapons, shields, or tools. Cannot don or remove armour without help. Cannot apply the bonus for Dexterity to thrown or missile weapons except objects dropped from above. Cannot open locks, disable traps, pick pockets, open a doorknob, or write. A wizard must take *Mage Hand* as a known spell at first level. Spells requiring specific material components with a gp value require an active *Mage Hand*. Can cast spells where a focus can substitute for material components. Cannot use a component pouch without an active *Mage Hand*. Somatic components require your whole body to be free to move (behir, beholder, blink dog, chimera, cloaker, killer whale).
2. Grasping paws or similar. Able to grasp items and point wands but due to weak grip, lack of coordination, or limited range of movement cannot wield weapons, use shields, or perform fine manipulation such as writing. Cannot don or remove armour without help. Cannot apply the bonus for Dexterity to thrown or missile weapons except objects dropped from above. Cannot open locks nor disable traps. Can pick pockets with a Disadvantage. Requires a DC10 Dex check to open a doorknob though if the door was intended for people two or more Sizes larger you are at a Disadvantage. A wizard must take *Mage Hand* as a known spell at first level. Able to cast most spells requiring material components. Spells requiring specific material components with a gp value require an active *Mage Hand* to be cast if fine manipulation is described in the spell description. Can use a focus as a substitute for material components. Can use a component pouch. Somatic components require your whole body to be free to move (dragon, raven, crab, homunculus, otyugh, raccoon, possum, umber hulk).
3. Basic hands or tentacles or similar. Able to wield Simple Bludgeoning weapons such as clubs and maces (PHB49). Can use shields. Cannot apply the bonus for Dexterity to thrown or missile weapons except objects dropped from above. Can remove armour without help but cannot don armour without help. Cannot perform fine manipulation such as writing. Cannot open locks. Can disable simple traps but with a Disadvantage. Can pick pockets and open doorknobs normally. A wizard must take *Mage Hand* as a known spell at first level. Able to cast most spells requiring material components. Spells requiring specific material components with a gp value cannot be cast if a fine manipulation is described in the spell description. Can use a focus as a substitute for material components. Can use a component pouch. Somatic components require *two* free manipulators (hands, tentacles, or whatever) rather than one. If the species only has one manipulator, then somatic components require your whole body to be free to move (aboleth, baboon, chuul, awakened trees).
4. Able to 'pinch' using something like fingers but still not as good as human hands. Only able to wield Simple Bludgeoning melee weapons such as clubs and maces (PHB49). Can use a shield. Can perform fine manipulation such as writing and manipulating lock picks. Able to disarm traps, pick pockets, and open doorknobs. Cannot apply the bonus for Dexterity to thrown or missile weapons except objects dropped from above and hand crossbows. Loading and firing hand crossbows requires fine manipulation at a similar scale to lockpicking etc. Can don and remove armour unaided. Spell casting unaffected. If a species looks like it has good hands but has a primitive almost tool-less existence it is probably at this level (dretch, elephant, ape, yeti).
5. Able to use all weapon types and tools. Spell casting unaffected. Can apply the bonus for Dexterity to thrown or missile weapons. Combines strong grip and precise manipulation. Normal rules apply (angel, azer, bugbear, bullywug, cambion, centaur, gnome, human, thri-kreen,).



Beasts, oddities, & weapons

Creatures with different Tool Use have different costs for their Size because the damage causing capability of wielded weapons is a factor in pricing. Clever players will try to circumvent this by making steel clawed gloves or the like. If you allow this I would be inclined to represent these as a simple +1 to damage and certainly never more than +3. This mimics the effects of magical weapons for handed characters. Magical versions of these items use the mundane or the magical bonus to damage not both. Such items would probably not be ready for sale and would need to be custom made and therefore as rare as magical weapons.

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Non-humanoid spellcasters

The polymorph spell and the exact wording of the spellcasting rules indicate only creatures with good hands (Tool Use 5) can cast spells with somatic components and only creatures that can speak words (Speech 3) can use spells with verbal components. However, in the MM a number non-humanoid monsters are spellcasters including yochlol, dragons, and sphinx. The rules for innate spellcasters *only* excuse monsters from using material components. The rules presented here are simply logical extensions of the examples of non-humanoid spellcasters in the MM.

CHANGE SHAPE, POLYMORPH ETC.

Change shape and other shape-shifting powers might seem to offer an easy way around Tool-use restrictions but careful reading of the rules and analysis reveals the limitations of these. Firstly, these powers are only available at high level. Change shape for example is an improved version of the polymorph spell and not available until 7th level. By 7th level classes can provide similar powers. Just as a human transformed into a handless parrot can't cast spells with somatic components a parrot transformed into a human cannot use somatic components even though the new form has hands. Furthermore your starting class features and proficiencies are restricted by your *natural form* and Change shape and similar powers are very clear that you don't get the class features of the new form, here I take that to include proficiencies. You can take Weapon Master, Skilled and armor use feats to overcome this but doing so effectively buys off the points from Tool Use. Below is a new feat allowing spell use in Humanoid form, do not create versions of this feat for other Types, they will be overpowered.

FEAT HUMANOID SPELLCASTING

Prerequisite: non-humanoid Type in Natural Form, ability to take on forms of Humanoid Type.

Humanoids are the most common spellcasters in the universe and you have studied their methods and practiced manipulating magic while in Humanoid form. You may cast spells while in a form with the Humanoid Type.

AWAKENED ANIMALS AND PLANTS

These are products of the Awaken spell or exposure to powerful magical energies. As *monsters* Awakened plants have Int10, Wis10 so races will have +0 to both of these ability scores. PC Awakened plants speak Common and any one other language. We assume they learned one of these some time after being Awakened. Plants generally have the false appearance trait. Awakened trees and shrubs are in the MM.

Awakened animals are exactly the same as the monster stat block would indicate except the *monster's* Int ability score is 10 therefore the adjustment for a PC race will be +0 (range 3-20). They also gain the ability to understand and speak one language. PC awakened animals speak Common and any one other language. They also understand ordinary non-intelligent creatures of their kind and similar creatures. Finally, they look like normal animals which can be useful, this is the False Appearance Trait if the animal is a non-threatening one.

WEAK AWAKENED ANIMALS AND NON-HUMANOIDS

Some non-humanoids are so weak it is hard to find 12pt worth of traits. For the most part these creatures are low down on the food chain and must be constantly alert for predators. Therefore the following 'package' or portions of it is a good place to start gathering those extra points.

Prey Species: proficiency on Dexterity (4) and Wisdom saves (4), advantage on saves against magic using Wisdom (1), +1 or more initiative (0.5 each), can try to hide when lightly obscured (2), proficient in stealth (2) and perception (2), and at 2nd level Dangersense as per Barbarian (2.25).

SIZE (1)

For Sizes other than Small and Medium, whenever your Size place you in danger or prevents you from doing something critical your DM might award Inspiration (PHB p125). For example a giant

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might be rewarded Inspiration for not being able to enter a cave where the rest of the party was losing a fight but not if the cave was merely providing safe shelter from the rain. If your Size makes something more difficult but not impossible apply Disadvantage, for example a hill giant trying to pick a human-built lock.

The other issue is equipment of the right size. Firstly, regardless of Size, I recommend players pay Medium Scale coin prices for equipment at the time of character creation.

For armour we learn from the barding rule, different sized armour does not differ in AC from Medium scale, cost is x4 per scale up and x1/4 per scale down, weight is x2 per scale up and x1/2 per scale down. In the PHB Small armour costs and weighs the same as Medium you may wish to change this. These rules could be used for any worn equipment including packs.

Weapon cost probably increases in proportion to the average damage of the weapon (see below) compared to the Medium version, i.e Large x2, Huge x3, Small x1/2 and Tiny x1/4. Weight increases by x8 per Size increase or x1/8 per Size decrease in the real world.

For food and water buy medium size rations, note the weight bought then consult DMG111.

For other non-worn gear my best guess is cost x2 per increase in scale and x8 mass, x1/2 and x1/8 per scale down. The exception is items with value based on their materials, such as gold jewellery, those increase in cost as per weight.

SIZE AND WEAPON DAMAGE

For scaled weapons, if the weapon is in the monster's description use the damage listed (minus the monster version's STR modifier (or DEX modifier if finesse) if the creature is not Tiny). If the weapon is not in the MM, for Large scale double the number of damage dice, and for Huge triple the number of dice. Gargantuan scaled weapons would be 4x the usual number of damage dice. I suggest halving the number of sides of the dice (round down) used for Small weapons (for example a 2d6 becomes 2d3, a d2 becomes 1 damage, 1 damage becomes 0 damage). Using this system a Small Greatsword does 2d3 slashing. Tiny weapons do 0 damage to most foes and 1 damage to Tiny foes if the Medium version does 1d6. If the Medium version does 1d8 or 1d10 then the Tiny version does 1 damage. If the Medium weapon does 1d12 or 2d6 then the Tiny version does 1d2 damage. In all cases Tiny PCs using Tiny weapons or unarmed strikes *do not modify damage or attack rolls for STR* ever, regardless of whether STR modifier is positive or negative the STR modifier is treated as +0 when using these weapons. Unlike MM versions Tiny PCs do add DEX to damage when using missile or finesse weapons. The addition of DEX to damage gives Tiny PCs more utility and is consistent with how the price for Tiny was calculated from weapon damage.

Unarmed damage is NOT scaled this way. Unless bought as a separate trait unarmed damage is 1 bludgeoning. Note though as described in "Tool Use 3+ and Size" below big creatures with good hands can upgrade Natural Attacks with a discount as shown on the table in that section. This is also an example of why this is a system for referees not players, yes you can upgrade natural attacks with a big discount but you should also use restraint and choose a 'sub-optimal' natural attack damage if natural weapons are not thematically important to the race. When building a Large or bigger race I recommend purchasing the following minimum damage levels for normal punching, kicking, etc. Tiny 0 damage, Medium or Small 1 damage at not cost, Large 1d2, Huge 1d4, and gargantuan 1d8.

The range of thrown and missile weapons does not increase with Large Size. Tiny weapons have half range. Small creatures in the MM use Medium scale weapons, but at a guess Small scale weapons have normal range (like Large they are only one Size away from Medium). Another guess, Huge and Gargantuan scale weapons have the double range (opposite of Tiny).

Reach weapons add the following to reach by Size Tiny 0 ft, Small or Medium or Large 5ft, Huge or Gargantuan 10 ft. This is the same progression as ranged weapons.

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A giant's rock is a simple ranged weapon.

Evidence for scaling weapons

There are lots of examples of Large and Huge weapons in the MM. I'm essentially guessing that the series continues for Gargantuan weapons. Sprite in the MM tells us a longsword doing 1d10 or 1d8 (with STR mod -4) at Medium and a shortbow 1d6 (with DEX mod +4) both go to 1 damage at Tiny but we currently don't really have any other data points for smaller than Medium scaled weapons. While we wait on further evidence I'm essentially guessing about the damage from Small weapons.

The solar (MM18), marid (MM146), ogre (MM237), and others tell us that the range of thrown and missile weapons does not increase with Large Size. Sprites tell us that Tiny weapons have half range.

ODD-SIZE WEAPON USE

The basic assumption used when pricing Sizes was that PCs would use weapons scaled for their own Size. If you want to consider allowing PCs to use other Size weapons the following rules preserve the assumed weapon damage used to price Sizes.

- Weapons of different Sizes are different proficiencies. A Large javelin proficiency does not let an ogre use her proficiency bonus with a human's Medium javelin. If a creature changes Size when levels are gained, then all weapon proficiencies also scale up at the same time. For example if an adolescent Medium humanoid is proficient in Medium longsword and Small javelin grows to Large then her proficiencies change to Large longsword and Medium javelin. If no Size is noted with a proficiency then the same Size as the character is assumed. This applies even to proficiency groups, for example if a Large character receives 'all Simple and Martial Weapons' from a class this should be read as 'all *Large* Simple and Martial Weapons'.
- Anyone can use a weapon designed for a smaller Size, any melee weapon doing the same damage as a dagger of your Size or less may be wielded with one hand.
- Medium or larger PCs can use Light weapons built for one Size larger but do not benefit from any Light, Thrown or Finesse tags the weapon might have. Additionally if the Medium Size version of the weapon does 1d6 or more two hands are required.
- Small characters may use weapons one Size larger the Heavy tag gives them disadvantage (canon rule).
- Tiny creatures are not just half as tall as Small ones, they are usually smaller than that! Furthermore in some settings Tiny weapons might be hard to find. Tiny characters *using two hands* may use Small one handed non-Heavy weapons as well as Medium hand crossbows and Light Finesse weapons. When used by Tiny characters larger Size weapons no longer benefit from the Light, Finesse, or Thrown tags (i.e. all wrong-sized melee weapons are STR based when used by Tiny PCs). Tiny PCs using wrong Size weapons *do* apply their STR modifier to attack rolls and damage, this is often a negative. Tiny PCs never add a positive DEX to damage when using larger Size weapon (a hand crossbow does 1d6+0) but do add DEX to attack rolls with larger size *missile* weapons.

These rules preserve the very limited weapon damage limits built into the price of Tiny Size. With DEX a Tiny PC using a Tiny will have a weapon attack DPR of around 4 at most levels, never allow a weapon that will exceed this! A 1d6+0 is DPR3.5.

SIZE AND EXTRA ATTACKS

Large or bigger Tool use 3 or higher creatures replace Extra Attacks from a class (like fighter at 5th) with 1d10 hit dice and associated increase in maximum hit points as shown in the table below. For example a Huge giant replaces the first two extra attacks gained from her class with a d10 HD for each. Creatures of Tool Use 1 or 2 never lose Extra Attacks in this way.

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Why are extra attacks removed from bigger races?

To allow bigger tool users at lower levels than would otherwise be possible the Extra Attacks feature needs to be removed to keep these races within the normal damage per round progression for PCs even if they take a class that grants Extra Attacks. However we don't want to short-change fighters especially since bigger races should be good combatants. A d10 hit die just happens to be worth the same number of points as an extra attack and giving larger warriors more Hit Points seems believable.

Here's some of the math. Let's compare two characters with Strength 20, two Extra Attacks and greatswords, one is human the other is Large but otherwise they are the same. Assuming a worthy foe is hit 50% of the time, three attacks is x1.875 damage. So the human (2d6+5 damage per attack) has a DPR of 22.5. While the Large giant with STR20 armed with a scaled greatsword with 4d6+5 damage per attack has DPR 35.625. That's 13.125pt of damage difference. 11th is when the fighter has 3 attacks. The human fighter above has a DPR close to Doug Irwin's (Surfarcher) average DPR for a single PC (for a party of the four core classes) at 11th level, 26.2, that's still 9.425pt more damage per round for the giant. The average DPR for a canon PC at 19th level is 35.8, an 11th level character able to dish out damage like a 19th level one is obviously overpowered. Removing the Extra Attacks from giant PCs seemed the best option.

TOOL USE 3+ AND SIZE

Both Size with tool use 3+ and Natural Attacks are both effectively changes to DPR. However, Size is discounted by -1 per Size Large and above to account for the greater number of foes that can surround you. Therefore if a Large or bigger tool use 3 or better creature takes natural attacks apply the discount below (minimum 0pt, the price of the natural attack cannot be negative). As usual only pay for the most damaging natural attack.

Size (pt)	Tool use 5			Tool use 3 or 4		
	Level Size is Gained (pt)	Natural Attack discount	Extra Attacks replaced	Level Size is Gained (pt)	Natural Attack discount	Extra Attacks replaced
Tiny	1(-3.5)	0	0	1(-3.5)	0	0
Small	1(-2)	0	0	1(-2)	0	0
Medium	1(0)	0	0	1(-1.5)	0	0
Large	5 (6)	-7	1	3 (3.5)	-4.5	1
Huge	11 (10.75)	-12.75	2	5 (5)	-7	2
Gargantuan	17 (13.5)	-16.5	3	8 (6)	-9	3

CENTAUROIDS

Centauroids have a quadruped lower half and a humanoid upper half sprouting from where the head of the quadruped would be. A centaur is the classic example. Centauroids use tools and weapons scaled to one Size lower than their actual Size. A centaur for example uses human scale weapons. A centauroid that has tool use 3+ pays the point price for being one Size lower. They have the level requirement of one Size lower also. They exchange Extra Attacks for d10 HD as if they were one Size lower. They use weapons scaled to a Size one lower than their actual Size. In all other ways they are treated as their actual Size.

For example: a Large centauroid pays the point cost for Medium, i.e. 0pt, there is no level requirement to be Medium so they can be full grown at first level, similarly they do not exchange their first extra attack for a HD as a Large humanoid would. The Large centauroid uses normal Medium scale weapons. However, its armour, for example, has the greater price and mass of Large size armour.

THE AQUATIC 'SWITCHES'

The traits gills and aquatic are not even lesser traits, they not only have a point cost of zero, they do not count towards a race's lesser trait limit either. They are 'switches' between two modes of existence, the land and the water. If a land creature can gain water breathing and swim speed after gaining levels then the reverse should be true, right? Well, yes and no. If an aquatic character joins after they gain access to the land then the assumption of equivalence is probably fair. However

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aquatic races that never gain a land speed and/or the ability to breathe air are thoroughly unsuitable to join land campaigns and should be restricted to campaigns set under the sea or mostly on ships.

Aquatic (! 0): you have a swim speed and must follow the rules land creatures use for swimming to manage a clumsy slither or crawl across the dry land (PHB182). Unless the race has a Land Speed each foot of movement costs them one extra foot (difficult terrain costs 3) and an athletics check is required to cross difficult terrain on land.

Gills (! 0): you breathe water not air. If you enter the air the usual rules for holding your breath and suffocating apply (PHB183).

POWERFUL MONSTERS (I)

Monsters in 5th edition are generally tougher than in previous editions and therefore many just can't be built with a measly 12pt. These powerful creatures can be represented by using racial feats and/or level adjustments.

CHAINED RACIAL FEATS (I)

Though there are no canon examples it is reasonable to assume racial feats can be chained, in that a racial feat has an earlier feat as a prerequisite and so on. Each link in the chain advances the level allowed for traits by four levels except the 5th in a chain which only allows level requirements up to 19th. Racial traits can lower a race's point cost and Joining Level (see later) but bear in mind that classes grant a maximum of five feats. The limited number of extra points feats can grant (20pt for five feats, a total of 32pt with 12pt for race) and the need to package traits into lots of 4pt greatly limits the utility of this approach. Chained feats also allow the use of progressive traits. Feats always grant their benefit immediately, therefore in a chain of feats all improvements in progressive feats can only be gained when a new feat in the chain is taken.

LEVEL ADJUSTMENT FOR POWERFUL CREATURES (I)

Level adjustment (LA) is how many class levels a race is worth. The total level of the character is

LA	pt	min	max	Max lesser traits
0	12	11.25	12.5	6
1	23	22.25	23.75	6
2	34	33	35	7
3	45	43.75	46.25	7
4	56	54.5	57.5	8
5	64.5	62.75	66.25	8
6	75	73	77	9
7	85.5	83.25	87.75	9
8	96	93.5	98.5	10
9	106.5	103.75	109.25	10
10	117	114	120	10
11	127.5	124.25	130.75	10
12	138	134.5	141.5	10
13	148.5	144.75	152.25	10
14	159	155	163	10
15	169.5	165.25	173.75	10
16	180	175.5	184.5	10
17	190.5	185.75	195.25	10
18	201	196	206	10
19	211.5	206.25	216.75	10

LA plus all of her class levels. LA increases the allowed number of points and lesser traits (see table). When building LA races keep in mind two core principles. Firstly, that over time as much as the PCs capability as possible should be determined by class, therefore LA should be as low as possible while keeping the core features of the race.

Secondly, an LA is worth a number of levels but is not built in 'chunks' like an equivalent number of class



levels is, it can accommodate very high price items and the number of HD need not equal the LA. In short LAs are *not* class levels but *are* added to class levels.

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What is a level worth?

The short answer is it depends on which level. The LA table is based on the total value of a PC at any particular level.

The class-level with the simplest structure is the Barbarian at levels 4,8,16, and 19. The only gains the Barbarian gets are 1d12HD and +1 to two ability scores. If we can price these two items then we can price a level.

We already know +1 to two ability scores is 4pt. A level is worth more than 4pt.

A HD is trickier. A HD really is two traits: an addition to maximum hp and access to a die of healing during short rests. We have a value for additions to max hp from the Dwarf and Tough feat (0.1pt/hp at 4th level and above). A d12 HD defaults to 7hp so running the math we get 0.7pt at *most* levels. A level is worth more than 4.7pt.

You can also use a HD to heal during a short rest. This is a bit like a cure wounds spell (which heals 1d8 per spell level) and based on evidence from a number of races and feats spells are priced at around 4pt. So using the average rolls of a d12 and d8 I get: $6.5/4.5 \times 4 = 5.78\text{pt}$. The healing part of a HD is worth close to 5.78pt. In total a d12HD is worth close to 6.48pt. A level is worth *close* to 10.48.

Ok, Lets look at Wizard at 4th and 8th level:

Ability score improvements 4pt, 4hp 0.4pt, 1d6 healing die $3.5/4.5 \times 4 = 3.91\text{pt}$, and a new spell but at a spell level gained last class level. This last is an unknown. A new spell at a new spell level is 4 (as per the Magic Initiate feat) but two levels later the same spell is a 0pt lesser trait (Drow). The spell will be 4 or less pt. The class level must be *close* to 11.51pt.

At this stage I have not analyzed the classes thoroughly so my conclusions are less certain than for races. However, McTrepanier of the (now-defunct) D&D forum did a first pass analysis of the first tier of play for all classes and all tiers of play for the Fighter and Wizard. Based on this data the mean value of the levels 2-4 is 11.0, and by the end of the other tiers of play this mean has dropped to 10.5. Note that these are mean values, i.e the total point cost of all levels divided by the number of levels. I omitted 1st level since it is worth more points than other levels in Tier 1 (21.5pt) and all races must start with level one in a class.

How the LA table was made

At LA 1 to 4 each adds 11pt ($\text{pt} = \text{LA} \times 11 + 12$). At LA 5 or higher $\text{pt} = 10.5 \times \text{LA} + 12$. These formulas *approximate* the *total value* of a typical PHB PC at a level. The shift from a *mean* of 11 to 10.5 at fifth level causes an abrupt step change at 5th level in this table because levels 1 to 4 are effectively devalued from 11/level to 10.5/level at 5th level rather than a gradual decrease. The spread of allowed values for LA of 1 or higher was arbitrarily set to the formula $d = (\text{LA} \times 0.25) + 0.5$, where 'd' is the allowed deviation. That said, try to get as close to the target point value as possible, cutting skills and weapon proficiencies is often a good place to shave a few points.

The maximum number of lesser traits was based around young dragon races which have 8 or 9 lesser traits and LA6 to 12. The limits given should accommodate typical MM creatures as races but are somewhat arbitrary.

HIT DIE AND HIT POINTS FOR LEVEL ADJUSTMENT RACES

Without racial HD you risk creating a 'glass cannon' race with great powers and/or attacks but likely to be killed in one blow by a typical encounter for the level. The PHB classes have at least 1d6HD and 1d6 or 4hp per level but no more than 1d12 Or 7hp per level. The minimum HD for a LA race needs to keep pace with this. The die type for racial HD is determined by Size as for monsters. The number of HD must be within the limits on the next table. Personally, I keep HD close to the minimum below, that way odd races can join at lower levels and the character's class determines how much of a combatant the PC is (just as for Core PHB races).



Size	Die type	Price (points/HD)	Minimum HD	Maximum HD
Tiny	D4	2.5	LA x 2	LA x 7/2 (round down)
Small	D6	3.5	LA x 1	LA x 7/4 (round down)
Medium	D8	4.5	LA x 4/5 (round up)	LA x 7/5 (round down)
Large	D10	5.5	LA x 2/3 (round up)	LA x 7/6 (round down)
Huge	D12	6.5	LA x 4/7 (round up)	LA x 1
Gargantuan	D20	10.5	LA x 4/11 (round up)	LA x 7/11 (round down)

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Hint: set HD to zero, check LA, add minimum HD for LA, check LA at the new point total, adjust to minimal HD for LA, repeat until HD, LA, and points are in nearly in agreement, then tweak other traits until within the allowed point range for the LA. This procedure gives you the lowest possible LA.

Setting the prices for HD

The process for determining HD prices has already been described in “Why is a level worth 11 or 10.5?” above. Essentially, every HD is priced as source of maximum HP and as a source of healing. All were rounded to the nearest 0.25pt.

Joining level (JL) is the level of canon race characters when the monster race joins them. Typically, $JL=LA+1$. For example a monster with LA4, JL5 joins a party as a first level in her class when the humans in the party are 5th level in their classes. **A character must have at least one level in a PHB class to be legal for play.** Sometimes however JL is higher because a trait requires a higher level (see below). In either case **when adding the first class to to a racial LA do not use the multi-classing rules.** To be clear: there are no prerequisites for your first class after an LA, and you get all of the proficiencies of that class. Note that the races never include Channel Divinity, or Extra Attack. However, LA *does* affect experience points and proficiency *bonus* like a class as described on PHB163. See notes on traits for how to handle Unarmoured Defence and other traits that add a second ability score bonus to AC.

Now look over the traits for your race. If any are cheaper at later levels use the higher level cheaper price if the level the trait is gained is under or equal to the JL.

MULTIPLE DAMAGE RESISTANCES OR IMMUNITIES

A single damage resistance is worth 0pt and a single damage immunity 0.5pt. You might also allow two resistances at 0pt each if both are for uncommon damage types such as necrotic and radiant.

However, for two or more resistances or immunities the prices are not additive, difficult to calculate, and very expensive. The number of damage resistances or damage immunities beyond two does not change the price.

1. Use table DMG277 to figure extra effective HP at each level by multiplying the expected HP gained at each level by the modifier on DMG277 then subtracting the usual HP, i.e. $(HP \times \text{modifier}) - HP$. Assume CON+0 and a d8 for class levels.
2. Total up the extra effective HP for all levels 1 to 20.
3. Find the cheapest combination of HD that could possibly roll that number of HP or more.
4. The price of these HD is the price of the immunities or resistances.

Damage Resistance worked example.

Damage resistance is one of the harder traits to price. Let's consider an example a Large LA 3 race with 2d10 racial HD. This race has two resistances.

Effective HD for Race 2d10s.

Assume a D8 for class levels this race has $20-LA3=17$ class levels but remember max HP at 1st.

The HP adjustment varies by level (DMG277)

Calculating the effective extra HP at each level:

LA1, total levels 1 extra HP this level= $6hp \times 2 - 6hp = 6$ extra effective hp over and above the usual 6hp from this dice.

LA2, total levels 2 extra HP this level= $6 \times 2 - 6 = 6$

LA3, total levels 3 extra HP this level=0 no HD

Class level 1 total levels 4, extra HP this level= $8 \times 2 - 8 = 8$

Class level 2-7 total levels 10, extra HP= 6 levels $\times 5hp \times 1.5 - 6 \times 5 = 15$

Class levels 8-13 total levels 16, extra hp= $6 \times 5 \times 1.25 - 6 \times 5 = 7.5$

Class levels 14-17 total levels 20 extra HP= $4 \times 5 \times 1 - 4 \times 5 = 0$

Adding all that up is equivalent to 42.5 extra HP.

The price will be as for the smallest priced HD that can roll this amount or more. Well 4d12 will just do it for 26pt but a 2d20 + 1d4 can do it for 25pt. So for this example the price is 25pt.

Running a similar calculation race with no racial HD we get a price of 26pt.

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LEVEL ADJUSTMENT AND FEATS.

A race is not required to grant any feats at all regardless of LA. Normally a race may only grant one feat. If the race has high LA this allowed number of feats keeps pace with a PHB human PC as follows: LA 0-3 maximum 1 feat, LA 4-7 maximum 2 feats, LA 8-11 maximum 3 feats, LA12-15 maximum 4 feats, LA16-18 maximum 5 feats, LA 19 maximum 6 feats.

LEVEL ADJUSTMENT AND MULTIPLE TARGET DAMAGING POWERS

If a damaging power granted by a race affects two or more targets *or* has an area effect *and* the race is LA4 or higher then the price of the damaging power is divided by 10.

Why?

As previously noted based on canon races the cost of area effect and multiple target damaging powers is higher for races than for classes. However LA is outside of what canon races can do and replaces some class levels creating a hybrid of a race and class. I arbitrarily decided that the whole first tier of play was sufficient investment in a race to warrant extending this 'class discount' to race.

JOINING LEVEL AND SIZE.

It is a conscious decision that this system produces full grown adults or at worst nearly fully grown adolescents. *Most* bigger races have the level they reach full Size as a JL. A teenage half ogre might grow from the big end of Medium at first level to Large later but a Medium hill giant is a toddler, not a young adult. Teenage half-ogres and the like begin taking up as much space as Large creature in combat and have the Goliath's Powerful build trait but price each as 0pt (not -1) as these are progressive traits paid for with Large.

Tool use 1 or 2 creatures do not have Size related level limits.

LEVEL ADJUSTMENT AND TRAITS.

Where a trait is gained after 1st level use LA+class levels to determine when the trait is gained.

JOINING LEVEL AND TRAITS

For some creatures the referee may feel that an adult starting without the trait is stretching credibility. If this is the case feel free to raise JL to at least the level where the trait is gained.

Level, price, and average damage output

The prices and acquisition levels for weapon wielding creatures of odd sizes, creatures unable to wield weapons, and natural weapons were all determined based on the same principle; a new race should not exceed the damage dealing capability of other PCs. The most a canon PC can do with an attack round after round at first level is 2D6+STR. So at first level a natural attack should do an average of 7 damage per round or less. This output rises as the PCs gain levels. The levels requirements for bigger sizes and potent natural weapons prevent new races eclipsing canon PCs in combat.

To determine the points cost of these items the extra attack trait gained by fighters at 5th level was used as the main benchmark. Also considered were the prices for weapon proficiencies. The extra attack is the only feature other than a d10 HD (5.5pt) gained by a fighter at 5th. A level is worth 10.5 to 11pt. Most races will be at lower LA where levels are worth 11pt. It is simple to calculate the extra attack's price (11-5.5=5.5pt). After that it is simple proportion. For creatures with tool use 1 or 2, unarmed 1 damage was compared to a median 1d8 weapon damage.

Finally, the minor effects of Size on the number of foes that can surround you was considered. The bigger the creature the more foes can surround and attack them.

LEGENDARY ACTIONS AND LAIR ACTIONS

Legendary and lair actions exist in the game to give powerful *monsters* more actions to enable them to challenge high level adventuring parties even when outnumbered. This is another difference between how monsters and PCs are designed differently for their differing roles in game play.

PCs never get the legendary actions of the monster version of their race.

Lair actions however can only be used when the creature is at home. Since most adventures occur elsewhere lair actions are not really that useful. For this reason I consider **lair actions and regional effects lesser traits (! 0)**. They are not listed in the traits table. Obviously, a player can't just declare wherever they happen to be a lair. I suggest establishing a lair takes 6 months of

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cumulative downtime to modify the building, meditate to awaken elemental forces, or whatever. Only one lair can be maintained at a time. After this regional effects take a further year of cumulative downtime to manifest.

PART 4: UNUSUAL CHARACTERS IN PLAY

CHARACTER CREATION

When determining ability scores *if you use the random roll method* may not be able to adhere to the racial ranges on ability scores, often but not always 3-20. If so assign your rolls to get as close as possible then raise to 3 or lower to 20, or the racial Strength range for Tiny races.

If a race has a JL it begins with class levels = JL-LA. For example a LA2 JL8 race joins when the canon characters are 8th level but with only 6 class levels; the character's total level is 8. There are no prerequisites for your first class after an LA, and you get all of the proficiencies of that class. You still get the usual first level HP for your first class even if you have race HD and HP. Proficiency bonus is determined as if your level was LA+class level.

There are no limits on Background. The Outlander is good for maraudering humanoids and wild creatures. The Urchin would be good for rats and other city creatures who are Awakened to human level intelligence. Whatever your Background consider tweaking your Personality Traits, Ideals, Bonds, and Flaws or writing a new ones which reflect the culture or instincts of your unusual race.

If a race provides a skill proficiency then later a class or background provides the same skill the player may choose a different one. However, the same is not true of saving throw proficiencies; if a race provides a saving throw proficiency that is later repeated by a class or other option no replacement is given.

Equipment is as given by Class and Background or purchase. If you go with the Class and Background option, weapons and armour are scaled to your Size and items your Tool Use prevents you from using are not gained (you receive the items value in coins instead). Similarly, regardless of Size if purchasing equipment, pay the Medium Size price for all equipment during character generation (only). For races with low Tool Use the purchase method is generally a better option as it enables you to choose items you can use, such as healing potions or better armour, rather than weapons you cannot.

PART 3 RACES ARE A PLAYTEST.

Players and DMs should treat part 3 rules like a playtest beginning with what is presented here, proceeding with good faith at the table, and accepting that some tweaking may be necessary. I had no problem with Part 3 characters during the 2+ years of playtesting this system but my table is not your table. DMs: Warn the player that you regard the character as a playtest and ask that accept that you have the right to remove the character from play at any time.

TRAITS WITH ADDITIONAL RULES

Large or greater Size: The Warlock's Thirsting Blade cannot be used if the scaled weapon you are using does more than 2d6 (average 7) base dice of damage before adjusting for ability scores, class features, *etc.*

Tiny damage: Tiny PCs using Tiny weapons or Unarmed Strikes *do not modify damage for STR* ever, regardless of whether STR modifier is positive or negative the STR modifier is treated as +0 when using these weapons. Unlike MM versions Tiny PCs do add DEX to damage when using Tiny missile or finesse weapons.

Natural armour: if the PC wears armour use the highest AC of the natural armour and the worn, they do not stack (like the *barkskin* spell). The limits on DEX adjustment from armour worn apply even if the natural AC is better. Defence fighting style (PHB72) still adds +1AC if the character

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wears armour even if the armour has a worse AC than her natural armour; in this case the +1 is then added to the natural AC. Natural armour does not add to Unarmoured Defence (or traits like it see below). Figure armour class with Unarmoured Defence (or similar) *without* Natural armour (base AC10) then use either this AC or the AC with Natural Armour whichever is higher.

Natural Weapons: If a unarmed attack does 1d4 or better damage dice or a damage type other than Bludgeoning then it is a Natural Weapon and rules that can be used with Unarmed Strikes cannot be applied. When adjudicating how Natural Weapons interact with other rules a Natural weapon is a Melee Weapon but is not a Light, Heavy, or Improvised Weapon. All characters are proficient in the Natural Weapons of their race.

Unarmed Strike: Depending on your race ‘unarmed strike (PHB149) could include punches, kicks, tail-slaps, wing buffets, or similar unarmed attacks for which no damage is given in the race description.

Martial Arts: The monk Martial Arts damage does not add to Natural Weapons. It only applies to Unarmed Strikes (PHB149). In all cases either the Martial Arts damage or the normal damage applies, whichever is higher. Do not add them.

Unarmoured Defence & Fiendish Blessing: and any other trait that adds an additional ability score modifier to your AC. If you already have one of these traits you cannot gain another from a class. If your race has such an ability and you take a class that also has a feature of this kind at first level, like Barbarian, choose one trait/feature of this kind.

ROLEPLAY

The PHB PC races have descriptions full of roleplaying hooks. I could not provide this detail for the example races here. However PC monsters will have a core class and background providing roleplaying hooks and non-combat powers. In short, characters of these new races should have the nearly same degree of utility out of combat as regular races and fleshed out personalities for roleplaying.

If your race is a converted monster read the MM entry for the creature to get some ideas for roleplaying. Reading materials from earlier editions, particularly 2nd edition’s detailed MM entries and the old ‘Ecology of...’ articles in Dragon magazine, will give more background on the race. VGM also has excellent sections on roleplaying some monsters, notably giants.

If desired the habits (odious, aloof, or wierd) of some races could be represented as Flaws. Flaws can also represent prejudice against ‘evil races’ or those with frightening appearances in less cosmopolitan campaign settings. Like all Flaws Inspiration can be awarded when these habits and reputations cause trouble for the character.

AT THE TABLE

The more human-like the character is, the easier it will be to include them in D&D’s traditional types of adventures, dungeons. Creatures of any Size could be adventurers. If your campaign features a lot of dungeons then Large is probably the maximum Size for PCs. If however your campaign consists mostly of outdoor travel and battlefields, arguably more realistic premises than the traditional D&D dungeon, then Huge PCs should play just fine. Tiny PCs can be useful in any type of adventure.

Unusual shape is actually less of an issue than Size if the character is part of a party. Compare a giant eagle and an Awakened raven, the later can easily perch on another PC’s shoulder and go indoors. A solitary worg is going to be stuck when faced with their first doorknob but as part of a party they can get past the door and do their fair share to overcome whatever is on the other side.

As a DM, be on the look out for situations where Disadvantage would apply or Inspiration gained because of a character’s unusual Size, Tool Use, or (lack of) Speech.

Race analysis and creation

LA races tend to have mid-range HP, high ability scores, good saves and good skills. They have fewer features than a human of the same level. The example races with LA have relatively low HD on purpose so that the character's class is important to defining their role in combat relative to others of their kind, just as for canon races. In most cases *high* LA races also have a bonus to CON and this will result in mid-range HP compared to canon PCs. A race with LA will often have higher ability scores than a canon race at the same total level, this translates into better skills making the race a *little* like a multi-class with rogue in capability. High ability scores, in some cases combined with save proficiencies, can also make LA races more resilient against spellcasters and special attacks than HP would indicate. A Bronze Dragon fighter will have fewer HP than human one the same level, but is much more resistant to enemy spells and special effects. While most canon PCs are proficient in only two saves (three with the Resilient feat), one of the tricks to make MM monsters a challenge despite having fewer features than a canon PC is to give potent foes more save proficiencies. Saves are part of the compensation for a LA race having fewer class features than a canon PC. A bronze dragon fighter will never be as good a fighter as a human at the same total level, just as a fighter-wizard multiclass will never out-fight a human fighter at the same level. The dragon however can use her flight, strength and mass, resilience against magic, and high skills to contribute in ways the human fighter cannot.

Some races have speeds lower than 25 or higher than 40, the special travel pace rules (DMG242) will be useful in some circumstances involving fast or slow races. For example, unless carried, a Speed 15 character will slow the party down but a single Speed 60 one will not affect the party's overland travel speed, he must wait for the others.

WHAT IF THE UNUSUAL PC SEEMS TOO POWERFUL?

If during play the unusual character seems too powerful the referee should tweak the offending race. One easy option is to freeze the unusual PC's class level and then when the character advances a level add an LA instead (only add HD and then only when required to maintain minimum HD for the LA). Keep doing this until the unusual PC seems to be equal to other PCs in play. This solution should work fine if everyone is there to have fun and acts in good faith. Another alternative is to remove the character from play.



APPENDIX A: EXAMPLE RACES

These races were chosen because they have been used as PC races in previous editions or settings, allow core archetypes of the fantasy genre to be played (including fairies, giants, and dragons), or demonstrate the capabilities of the race design system.

FOLKLORE & LEGEND

The Ferrish, Thurse, and Drakon are creatures from folklore and legend that I have translated into D&D. They have not appeared in D&D before.

One motivation for producing this document was my interest in drawing on mythology and folklore when playing RPGs. The companions of heroes in many traditional tales are much more diverse than canon D&D allows. Talking animals, giants, dragons, and faeries are all major allies of the heroes of many tales. Now your D&D games can mirror this diversity even at first level!

SHORT FORM RACE FORMAT

Stars LA JL Size Type (Tags) Tool use () Speech () Speeds ()

Languages: Language

Str{Range if Tiny}, Dex, Con, Int+0, Wis, Cha ().

Traits: trait () **Total**

Lesser Traits number: lesser trait

Switches: switch

Notes: This standard short format ensures nothing is forgotten. Where a race has no item for an underlined entry, or has the default, that entry may be omitted.

BEAR, AWAKENED BLACK

** ½ Medium Beast Tool Use 2 (I -3.25) Speed 40ft (X 1), Climb speed 30ft (F 2)

Languages: Common and one free choice language (X). Able to communicate with bears (I).

Str+2, Dex+0, Con+2, Int+0, Wis+1, Cha -2 (P 6).

Traits: Natural armour AC11+DEX (I 0.05), Perception skill (P 2), Bite 1d6 piercing and claws 2d4 slashing (F 2.5), Keen Smell (X 2). **Total 12.3**

Lesser Traits 2: Languages.

CAT, AWAKENED

** ½ Tiny Beast Tool Use 1 (I -3.25) Speed 40 (X 1), Climb Speed 30ft (I 2).

Languages: Common and one other of the player's choice.

Str-2{1-6}, Dex+2, Wis+1, Cha-1 (P 0)

Traits: Proficiency in Acrobatics, Stealth and Perception (P 6) as well as DEX saves (P 4). Keen smell (advantage on Wisdom (Perception) checks that rely on smell) (X 2). **Total 11.75**

Lesser traits 3: one language is a free choice (X), no disadvantage on sight checks in dim light (F), Claw attack does 1 slashing damage (finesse) (I).

CENTAUR

**½ LA3, JL4 Large (centauroid) Monstrosity (I 0) Speed 50ft (F 2)

Languages: Common, Elvish, and Sylvan

Str+4, Dex+1, Con+2, Int+0 (P 14).

Traits: Racial HD 2d10 (I 11), hooves 2d6 bludgeoning (I 3.5). Skill proficiencies at 4th level: Athletics, Perception and Survival (P 4). Proficient in pike and longbow at 4th level (X 1). At 8th level Charge as a progressive trait: initially +1d6, at 13th level +2d6, at 17th level +3d6 (I 8.5).

Total 43.75

Race analysis and creation

Lesser traits 1: Three languages (X)

CENTAUR, VARIANT.

**1/2 Large (centauroid) Monstrosity (I 0) Speed 50ft (F 2)

Common, Elvish, and Sylvan Common, Elvish, and Sylvan
Str+3, Dex+0, Con+0, Int+0, Wis+0, Cha+0 (P 6).

Traits: Hooves 2d6 bludgeoning (I 3.5), proficient in pike (X 0.5). **Total 12**

Lesser traits 1: Three languages (X)

Notes: By removing the Charge ability we can create a LA0 version playable from 1st level. A similar adjustment was made to the PC version of aarakocra.

DRAGONS

It is odd how a game called Dungeons & Dragons does not feature dragon PCs. These are all young dragons within the first few decades of life and therefore about the same age in years as other PCs. Though not full grown, a dragon character is an independent adult. Since the next age category is reached at age 101 it is unlikely that the PC will progress in a typical campaign. Except for the Drakon, note how all the traits are granted at a lower level than the race's JL therefore the dragon begins with all the traits listed.

For all dragons Breath Weapon DCs are 8+proficiency bonus+Constitution modifier.

These dragons have all the traits of the MM versions but lower HD and ability scores as well as less potent breath weapons, all easily explained as inexperience and being within the first few decades of the Young age category. You could make versions exactly like the MM version but the LA would be 2-3 higher.

Drakon

**1/2 Large Dragon Tool Use 2 (I -3.25) (they range from horse-sized to as big as a rhinoceros)
Speed 30ft Fly Speed varies by sub-race.

Languages: Draconic and Common.

Core Traits: Breath Weapon: choose one as described for Dragonborn (P 6). Bite reach 10ft & Claw reach 5ft: 2d6 piercing 2d4 slashing respectively, unarmed strike 1d2 bludgeoning, but no extra attacks (I 4.5). Natural AC 12+DEX (I 0.2) **Core Total 6.45**

Core Lesser Traits 2: Draconic resistance: damage resistance to match breath weapon as per dragonborn (X). Darkvision 60ft (X).

Choose one subrace:

Robust

Subrace Traits: No ability score adjustments. Poor Flyer: at 1st level wings act as per the feather fall spell except self only and at will (I 2) and Fly speed 30 for one minute only before endurance gives out. After using the flying speed it cannot be used again until a long rest is completed. You *can* fly while wearing any armour. At 6th level gains a flying speed is raised 40ft, the one minute duration no longer applies, A long rest is not longer needed between flights (I 3.5). **Total 11.95**

Gracile

Subrace Traits: -1 Con, -1 Int (P -4). At 1st level Fly speed 50ft but unable to fly while wearing medium or heavy armour (F 9). **Total 11.45**

Notes: This new kind of dragon is a race playable from 1st level with the iconic size, scales, wings, bite, and breath weapon expected for dragons. Drakon is ancient Greek for dragon. The drakon presented here resembles earlier tales of the Middle Ages before the power bloat of modern dragons. Remember that, although STR is not adjusted, as a Large creature you can still carry more. After feedback I added two subraces. A robust subrace with no ability score modifiers but delayed flight and a light boned and flighty gracile subrace that can fly at 1st level.

Race analysis and creation

Brass

*½ LA6, JL7 Large Dragon Tool use 2 (I -4.25). Speed 40ft (X 1), Fly 80ft at 6th (! 14)

Languages: Common and Draconic.

Str+3, Con+3, Int+1, Cha+2 (P 18).

Traits: 4d10HD (I 22), natural armour 17+Dex at 5th level (I 2.5), proficient in Dex, Con, Wis and Cha saves at 4th level (P 8). Skill proficiency for Stealth and Perception at 4th level (P 2.667), damage immunity fire (I 1), unarmed strike 1d2 bludgeoning reach 5ft, claw 2d6 slashing reach 5ft, and bite 1d10 piercing reach 10ft, at 8th level bite damage increases to 2d10 (I 6.5), Brass dragon fire breath 6d6 at 5th improves to 8d6 at 11th level then 12d6 at 17th level (I 1.1 discounted for high LA), sleep breath at 7th level (I 1.53), blindsight 30ft at 5th level (I 1.25). **Total 75.3**

Lesser traits 8: burrow speed 20 at 7th level (!), darkvision 120ft (counts as two lesser traits)(F). If you spend six months of downtime (cumulative) to establish a lair you may use may use all the lair actions described for your breed (MM106) while in the lair. After a further year of downtime you may apply the regional effects to the surrounding area.

Bronze

*½ LA8, JL9 Large Dragon Tool use 2 (I -4.25) Speed 40ft (X 1), Fly 80ft at 8th (! 12), Swim 40ft (F 1).

Languages: Common and Draconic.

Str+4, Con+4, Int+2, Wis+1 Cha+2 (P 26).

Traits: 6d10HD (I 33). Natural armour 17+DEX then raised to 18+Dex at 10th level (I 3.2). Proficient in Dex, Con, Wis and Cha saves at 4th level (P 8). Proficient in perception, insight and stealth skills at 4th level (P 4). Damage immunity lightning (I 1). Bite 2d10 piercing reach 10ft, unarmed strike 1d2 bludgeoning, and claw 2d6 slashing reach 5ft at 8th (I 6.5). Young bronze dragon breath weapon lightning damage begins at 5d10 at 5th level, becomes 7d10 at 11th level, then raised to 10d10, at 17th level (I 2.475 discounted for high LA). Young bronze dragon breath weapon repulsion at 9th level (I 1.5625), blindsight 30ft at 5th (I 1.25) **Total 96.7375**

Lesser Traits 8: amphibious at 3rd level (I), Darkvision 120ft (counts as two lesser traits)(F). If you spend six months of downtime (cumulative) to establish a lair you may use may use all the lair actions described for your breed (MM109) while in the lair. After a further year of downtime you may apply the regional effects to the surrounding area.

Copper

* ½ LA8 JL9 Large Dragon Tool use 2 (I -4.25) Speed 40ft (X 1), Climb 40ft at 3rd level (I 1), Fly 80ft at 8th level (! 12).

Languages: Common, Draconic.

Str+3, Dex+2, Con+3, Int+2, Wis+1, Cha+ 2 (P 26).

Traits: Natural armour 16+DEX at 4th level (I 1.8), 5d10 racial HD (I 27.5). Save proficiencies at 4th : Dex, Con, Wis, and Cha (P 8). Skill proficiencies at 4th choose two from: deception, perception and stealth (P 2.667). Blindsight 30ft at 5th (I 1.25). Immune to acid damage (I 1). Natural weapons: bite 2d10 piercing reach 10ft, unarmed strike 1d2 bludgeoning, claw 2d6 slashing reach 5ft at 8th (I 6.5). Young copper dragon acid breath at 5th level 4d8, at 11th level 7d8, at 14th level 9d8 (I 1.05 discounted for high LA). Young copper dragon slow breath at 9th level (I 1.27). **Total 86.7867**

Lesser Traits 7: darkvision 120ft (XF, counts as two lesser traits). If you spend six months of downtime (cumulative) to establish a lair you may use may use all the lair actions described for your breed (MM112) while in the lair. After a further year of downtime you may apply the regional effects to the surrounding area.

Race analysis and creation

Silver

* ½ LA9, JL10 Large Dragon Tool use 2 (I -4.25) Speed 40ft (X 1), Fly 80ft at 8th (! 12)

Languages: Common and Draconic

Str+5, Con+4, Int+2, Cha+3 (P 28).

Traits: natural armour 18+DEX at 10th level (I 3.2), 6d10 racial HD (I 33). Save proficiencies at 4th: Dex, Con, Wis, and Cha (P 8). Skills at 4th: Proficiency in Arcana, History, Perception, and Stealth (P 5.333). Immune to cold damage (I 1), blindsight 30ft at 5th (I 1.25). Natural weapons: bite 2d10 piercing reach 10ft, unarmed strike 1d2 bludgeoning, claw 2d6 slashing reach 5ft at 8th (I 6.5). Young silver dragon cold breath at 5th 6d8, 11th level 9d8 raised at 17th level to 12d8 (I 3 discounted for high LA). Young silver dragon paralysing breath at 10th level (I 10.045). **Total 108.578**

Lesser traits 8: darkvision 120ft (F, counts as two lesser traits). If you spend six months of downtime (cumulative) to establish a lair you may use may use all the lair actions described for your breed (MM118) while in the lair. After a further year of downtime you may apply the regional effects to the surrounding area.

Gold

* ½ LA12, JL13 Large Dragon Tool use 2 (-4.25) Speed 40ft (X 1), Swim 40ft (F 1) Fly 80ft at 6th (! 8)

Languages: Common and Draconic.

Str+6, Dex+2, Con+5, Int+5, Wis+3, Cha+5 (P 56).

Traits: natural armour 18+DEX at 10th level (I 3.2), 8d10 racial HD (I 44). Skill proficiencies at 4th insight, perception, persuasion and stealth (P 5.333). Save proficiencies at 4th : Dex, Con, Wis, and Cha (P 8). Immune to fire damage (I 1). Blindsight 30ft at 5th (I 1.25). Natural weapons: unarmed strike 1d2 bludgeoning, bite 2d10 piercing reach 10ft, claw 2d6 slashing reach 5ft at 8th (I 6.5). Young gold dragon fire breath begins at 7d10 at 11th, then at 17th level raised to 10d10 (I 3.075 discounted for high LA). Young gold dragon weakening breath at 13th level (I 3.75). **Total 137.858 .**

Lesser traits 7: darkvision 120ft (F, counts as two lesser traits). If you spend six months of downtime (cumulative) to establish a lair you may use may use all the lair actions described for your breed (MM115) while in the lair. After a further year of downtime you may apply the regional effects to the surrounding area.

DWARF, DERRO

**1/2 (play test) Small Humanoid (Derro) raise Speed to 30 (P 3)

Languages: Undercommon, Common, and Dwarvish.

Apply Dwarf racial attribute adjustments then apply the following: STR-1, Dex +2, Wisdom -4, CHA -1 (P -14).

Traits: Derro are a subrace of dwarf and therefore have all the dwarf core traits (C 2) except instead of the usual dwarf weapons they are proficient in hooked spear and light repeating crossbow (X 0.5 difference). These weapons are usually only for sale in Derro settlements. Change Size to Small (X -1), magic resistance (I 3), obsessed gain proficiency in one Intelligence skill (P 2), Raving (F 10, the mad ravings of the Derro are very distracting the effect is mechanically the same as the Kobold's Grovel, Cower, and Beg VGM119). **Total 12.5**

Lesser Traits 4: Increase the range of your Darkvision to 120ft (F, two lesser traits), Insanity: you have advantage on saves against charm or fright, sunlight sensitivity (I), and extra language (X).

Notes: Madness: all Derro are insane. Rather than the usual flaws by background describe an insanity as your flaw. The following new weapons are available at Derro settlements.

Race analysis and creation

Derro Hooked Spear: 5gp 2 Lb, light, no extra reach, not versatile, 1d4 piercing, if the target is a creature the user can do no damage and instead try to trip DC8+prof+STR, if the target fails they fall prone. Cannot be thrown. Martial melee weapon.

Derro Repeating Crossbow: 50gp 5 Lb, 1d8 piercing, ranged (40/160), ammunition (bolts). Cartridge holds 6 bolts. Reloading the cartridge takes an action even if you have a spare cartridge. Martial ranged weapon.

EAGLE, GIANT

* ½ LA2 JL3 Large Tool Use 2 Speech 2 Beast (I -4.25) Speed 10ft (! -9), Fly speed 80ft (! 20.75) cannot fly while wearing heavy or moderate armour (F -2.75)

Languages: Speaks Giant Eagle. Understands Common and Auran but cannot speak them.

Str+3, Dex+2, Con +1, Wis +2 (P 16).

Traits: keen sight (advantage on Wisdom (Perception) checks that rely on sight) (X 2), proficient in Perception skill (P 2). Beak 1d6 piercing and talons 2d6 slashing no extra attacks reach 5ft (I 3.5). Racial HD 1d10 (I 5.5). **Total 33.75**

Lesser Traits 1: one extra language (X)

Notes: Being able to fly before 6th level is exceptionally effective in certain circumstances and exceedingly dangerous in others. As a result, playing a giant eagle requires special consideration by your DM who may disallow this choice.

ELF, AQUATIC

***½ Medium Humanoid (Elf) Speed 25 (X -4) Swim 35ft (F 0.5)

Languages: Elvish, Common and Sahuagin.

Elf traits (PHB23) (C 6).

Subrace traits: Dex+1, Con+1 (P 4). Amphibious (PHB305) (F 2). Mask of the Sea: you can attempt to hide even when you are only lightly obscured by seaweeds, silt, and other natural underwater phenomena (as per Mask of the wild PHB24) (F 1.5). Proficient in spear and trident (X 0.5). **Total 11.5**

Lesser Traits 3: Spear proficiency (X), Extra language (X), Swim Speed (F)

Notes: This version of aquatic elf is based on the 2e version from the Book of Elves and the Monstrous Manual for that edition. Interestingly, these two sources are inconsistent in several places. This subrace has been extensively playtested as a key character in the author's home campaign.

ELF, FERRISH

*** ½ Small Humanoid (Elf) Speed 30ft

Languages: Common and Elvish

The Ferrishyn (the plural of Ferrish) are small elves inspired by Manx folklore. As elves Ferrishyn get all of the core racial traits of elves (PHB23) (C6).

Subrace Traits: Wisdom +1 (P 2). Small (X -1), keen hearing (X 2), proficiency in the Animal Handling skill (P 2) and shortbow (X 0), Mask of the Wild as per wood elf (F 1.5). **Total 12.5**

Subrace Lesser Traits 0

Notes: in Manx folklore the ferrishyn are small elves that are noted for hunting skills and keen hearing. They are known for being 'prickly' and egalitarian. The Ferrishyn are accompanied by small white horses and hounds whom they dye in bright colours. The hounds can be represented by giant rat stats except speed is 40, ferrishyn horses use Pony stats except speed is 60. If being purchased during character generation these creatures easily cost as much as the full sized animals

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used by humans, but these beasts are rarely found for sale once play begins. Ferrishyn typically are very fond of their beasts and exchange them with each other (only) as a gift economy.

FAIRIES

Fairies are an archetype of western fantasy and folklore. Whether you approach them as unpredictable and dangerous personifications of Nature and the Old Ways, Elizabethan mischief makers, or even diminutive comic relief as seen in Disney films is up to you. Fairies of both kinds have been extensively playtested as key characters in the author's home campaign.

A race with two subraces

* ½ Tiny fey (I -3.25).

Languages: Common and Sylvan

Dex+4, Wis+2 (P 14)

Race Traits: land speed 10ft (! -9), proficient in perception and stealth (P 4). Your unarmed strikes do 0 damage unless altered by another feature (I -0.5). **Subtotal 1.25**

Race Lesser Traits 0

Notes: Star rating is due to land Speed 10 otherwise ** ½. Take careful note on the rules for Tiny characters and weapons in this document. Both the sub-races fly. Having a flying speed before 6th level is exceptionally effective in certain circumstances and exceedingly dangerous in others. As a result, playing a faerie requires special consideration by your DM who may disallow this choice.

You should also choose one of the two subraces below.

Sprite

Str -4{1-6}, Int+1 (P -6).

Languages: also speaks Elvish

Traits:, fly 40ft (FX 10.25). At 1st level Heartsight, DC=8+proficiency bonus+Charisma modifier (I 1.6) at will. At 7th level *Invisibility* (self only) once recharged by a long rest, at 12th only a short rest is needed, and at 13th *Invisibility* (self only) at will (I 3). **Total 12.1**

Lesser traits 2: Extra language, Proficient in shortbow

Notes: as a Tiny creature a sprite is never going to deal a huge amount of weapon damage. That said a sprite's likely high AC, mobility, and capability with finesse weapons can give them good staying power in melee and high attack bonuses that can wear down opponents. In addition they can get access to poisoned arrows. A sprite can make capable PC of any class.

Unlike the Aarakocra the sprite can fly in heavy armour. I could have made the sprite unable to fly in armour and given them *Invisibility* earlier but I wanted to make the two faerie sub-races different to play so I did not. Instead I made the *Invisibility* power progressive. A Sprite's poison arrows cost 180gp each and are only available from sprite settlements. The cost for the arrows is a little lower than that of drow poison which has similar effects (DMG257-258). Alternatively, a sprite proficient in alchemist's supplies can craft the poison for the arrows as a downtime activity. The amount of poison worth 180gp is so tiny and the need for the poison to be in a puncture wound and not exposed to air after it encounters the blood makes it virtually impossible to coat other weapons with it, even Medium Size arrows.

Pixie

Str -5 {1-4}, Con -1, Int+0, Cha+2 (P -8)

Languages: Common and Sylvan.

Traits: fly speed 30ft at 1st level (F 8.75) but cannot fly in medium or heavy armour (F -2.75), Superior *Invisibility* at 4th level (I 7.5), Magic resistance (I 3). **Total 11.75**

Lesser traits 0

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Notes: Without access to good armour or weapons the pixie is best used in support roles such as healer, scout, bard, or ranged spellcaster. This nicely reflects the description of pixies in the MM. Magic resistance may give some referee's pause but remember it is really just a more powerful version of Gnome Cunning and the pixie's other traits make them vulnerable.

Pixie Dust

Pixies, not sprites, have access to the following racial feats. The spell DCs and spell attack bonus are Charisma based, DC=8+proficiency bonus + Charisma modifier.

While I avoided using racial feats, the pixie is an exception for a number of reasons. These feats are designed to remove most of the pixie magic out of the race to make it playable at first level. The feats and race recapitulate the MM pixie's powers for those that want that. However, pixie racial magic is pacifistic and might not be suited to all campaigns or character concepts. Making pixie racial magic optional broadens the kinds of pixies you can create.

Pixie Dust I

Prerequisites: pixie subrace

Benefits: *Detect thoughts* (I 0), *Detect Good and Evil* (I 0), *Dancing Lights* (I 1), and *Sleep* (I 3.25) each once recovered by a long rest. **Total 4.25**

Pixie Dust II

Prerequisites: pixie dust I

Benefits: *Druid craft at will* (X 2). You also gain the *Entangle* spell to be used once and recovered by a long rest (I 2.25). **Total 4.25**

Pixie Dust III

Prerequisites: pixie dust II

Benefits: You gain the ability to cast the following spells all once, recovered by a long rest: *Dispel Magic* (I 2.25) and *phantasmal force* (I 1.75). **Total 3.75**

Pixie Dust IV

Prerequisites: pixie dust III

Benefits: The ability to cast the following spells all once per long rest: *fly* (I 0), *confusion* (I 1.75), and *polymorph* (I 1.75). **Total: 4.75**

Total for all feats in chain 17. This is a little over the target but individual feats are close except Pixie Dust IV which is the last in the chain. I had produced a version of the chain worth exactly 16 but, after feedback, the first feat was under-value and didn't have *Sleep* and therefore no 'teeth'.

FLUMPH

* ½ Small Abberation Tool Use 4 (X -1) Speech 2 Speed 5 (-9.75), Fly 30 (8.75)

Languages: understands Common and Undercommon but cannot speak. Telepathy at first level, at 3rd level this is replaced by Advanced Telepathy (I 2).

Str -1, Dex +1, Int +2, Wis +1 (P 6)

Traits: Proficiencies: Arcana and History (P 4). Vulnerable to psychic damage (I 0). Prone deficiency (! -2). Tendrils as a finesse unarmed attack, DC=8+Proficiency bonus+Con modifier. (I 2.75). At 7th level the flumph gets the Stench Spray trait only once then recharged by a long rest. DC=8+Proficiency bonus+Con modifier (I 0.88). **Total 11.63**

Lesser Traits 2: Telepathic Shroud (I), Psychic Siphon (!): a flumph feeds on psionic energy here I assume that they can 'get by' on the weak psionic energy of any intelligent companions provided they encounter a rich source of psionic energy such as a city or psionic creature once per month. Alternatively, as per old editions perhaps they can eat rats and other meat when starving.

Notes: The flumph was created showcase the capability of the race design system. That said the race would suit a science-fantasy or sword-and-planet genre setting. Telepathic shroud was priced the same as a condition immunity. The price of Prone Deficiency is the reverse of only needing 5' of move to stand but is essentially a guess. The pricing of Tendrils is in two parts, first the initial

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attack is priced like any other unarmed attack (F 2.5), then the acid reoccurring damage is priced as a damaging power assuming it is active an average of two rounds (I 0.25). Stench Spray was priced based on Stinking Cloud but lasts longer therefore adding one spell level, the price was then adjusted as per Damaging powers for fewer targets and shorter range than the spell.

FROG, AWAKENED

* ½ Tiny Beast Tool Use 2 (I -3.25) Speed 20ft (! -5.25), Swim 20ft (I 5.375)

Languages: Common and choice of one other. Can communicate with frogs and toads (I 0)

Str -8{1-2}, Dex+3, Con +0, Wis +3, Cha-2 (P -8). If using the standard array a frog *must* assign the '10' to Strength to fall within the allowed range.

Traits: amphibious (I 2), standing leap (I 0.5), proficient in Stealth and Perception (P 4), unarmed strike is 0 bludgeoning damage (I -0.5), false appearance (F 0.5). Prey species: proficient in dexterity saves (P 4), Mask of the Wild (F 2), advantage on Dexterity and Wisdom saves against magic (F 1). At second level Dangersense as per Barbarian (F2.25). Exceptional individual: Your unusual past that has driven you away from the usual life of your kind is represented by a free choice feat (C 6) and three free choice skills (P 6). **Total 11.75**

Lesser traits 4: one language is a free choice (X), darkvision 30ft (I), Advantage on Dexterity save against magic (F), talk to frogs and toads (I).

Notes: Created mostly to test the lower limits of the system. This could be a great tool for a 'magic gone wrong' adventure where transformed PCs must go on a short quest to be returned to human(oid) form.

Frogs have poor saving throws due to low ability scores, consider the Resilient feat. Note that there are very few ways a frog can do melee damage. Taking a spellcasting class and a damage dealing cantrip is strongly recommended. If you don't have access to a damaging cantrip taking the Magic Initiate feat to get one is a good idea. A frog monk can do damage with Martial Arts and any frog can take the Tavern Brawler feat. How does a frog hurt anyone? I guess, a leaping head butt. With access to unarmed strikes only, no weapons, many class features which use weapon attacks cannot be used. The fighter, barbarian, paladin, and ranger include many features that require weapon attacks. Frogs taking these classes should compensate with options granting cantrips and spells.

GIANTS

Giants are an archetype of equal standing to dwarves elves, and dragons. However, interaction of Size and Damage prevents them from being PCs under the canon D&D rules. Here I present giant races for PC use, two of which are playable from 1st level!

Giant, Fog

** ½ Huge Giant (I 10.75). LA8, JL11 Speed 40 (X 1) The first two times a giant would gain an extra attack from a class she gains a 1d10 hit die and associated increase in maximum hit points each time instead.

Languages: Common, Giant.

Str+8*, Con+4, Wis+2 (P 28)

*Using Epic Boon variant rule a Fog Giant can Raise STR to 27 and CON to 23.

Traits: Reach 10ft (I 1). Natural armour 13+DEX (F 0.5). Racial HD 6d12 (I 39). Proficient in Dex, Con, and Wis saves (P 6). Skill proficiencies in athletics, survival, and stealth (P4). Keen senses: advantage on Wisdom (Perception) checks for both smell and hearing (X 4). Blend into fog, mist, falling snow, hail, or heavy rain (this works like Mask of the Wild for these conditions PHB24) (F 1.5). **Total 95.75**

Lesser Traits 3: Unarmed attacks do 1d10 bludgeoning damage (I 0 including discount for

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size). Weapon proficiencies: huge rock (as per a Cloud Giant's rock MM154) and Great Club (as per Hill Giant MM155).

Notes: based on the 2e Monstrous Manual creature. The Fog Giant was first seen in the 1e Fiend Folio. This giant is Huge but does not have the numerous magical powers of other Giants in the over 20ft height range and are not stupid and not evil making Fog Giants a better choice for a PC race than Hill Giants. These 24ft tall muscular giants have milk-white skin and silvery hair. They dwell in temperate coasts, marshes, and boggy forests; all places prone to fogs. They are hunter-gatherers but know some metalwork and value silver. There are both good and evil fog giants. They are known for being as quiet in ambush as they are boisterous in carousing.

Giant, Hill

** ½ LA1 JL11 Huge Giant Speed 40 (X 1). The first two times a giant would gain an extra attack from a class she gains a 1d10 hit die and associated increase in maximum hit points each time instead.

Languages: Common and Giant

STR +4, DEX -1, CON+4, INT-3, WIS -1, CHA-2, (P 4)

Traits: Reach 10 (I 1), natural armour 14+DEX at 2nd (I 0.8), 1d12 racial Hit Die (I 6.5), proficient in Perception skill at 4th level (P 1.333) **Total: 23.383**

Lesser Traits 2: Proficient in great club (X) and hill giant rock (X).

Giant, Stone

* ½ LA5 JL11 Huge Giant Speed 40ft (X 1). The first two times a giant would gain an extra attack from a class she gains a 1d10 hit die and associated increase in maximum hit points each time instead.

Languages: Common and Giant

STR+5, DEX+2, CON+4, WIS +1, CHA+0, (P 24)

Traits: Reach 15 (! 1.5), natural armour 15+DEX at 3rd level (I 1.25), 3d12 racial Hit Die (I 19.5), stone camouflage (F 3) **Total: 65**

Lesser Traits 5: Darkvision 60ft (X), proficient in Huge great club and rocks (see MM156) (X), Rock catching (MM156) DC10 DEX save (!), Unarmed attacks are 1d8+STR Natural Weapons (F 0 with discount for size).

Notes: Another non-evil giant race with no magical powers that is highly suitable for PC use. The stone giant appeared as a character class in White Dwarf #17, by Lewis Pulsipher in 1980.

Half-Ogre

* ½ Medium Giant. Speed 30ft.

Languages: Common and Giant.

Str +3, Dex+0, Con +2, Int-1, Wis-1, Cha+0 (P 6).

Traits: Proficient in battle axe at the same Size as the half-ogre (X 0.5), takes up the same amount of space of a grid or battlefiled as a Large creature (! Superceded by Large). At 5th level becomes Large (I 6). The first Extra Attack granted to the half ogre by a class is exchanged for a 1d10 HD.

Total 12.5

Lesser traits 4: powerful build (F) this trait is superceded by Large (i.e. is lost when Large is gained). Unarmed strike does 1d2 bludgeoning (I 0pt due to Large). Darkvision 60ft. Proficient in javlin at same Size as the half ogre (X).

Notes: the half ogre first appeared as a PC race in 1e and I really wanted it as an option for 1st level PCs to reproduce the 1e version. The in-game explanation is that the half-ogre is a teenager

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right on the cusp of Large size who soon puts on enough muscle and height to become properly Large.

Thurse

* Medium Giant Speed 35 (F 0.5).

Languages: Common and Giant.

Str+2, Con+1 (P 6)

Traits: Young Adult Giant: Just as a 16 year old human can adventure but is not yet fully grown you are a young adult. At 1st level you are around a third taller and 2.5 times heavier than a human. You take up as much space as Large creature in combat (! Superseded by Large). You have the Goliath's Powerful build trait (from the EEPC this trait is superseded by Large, i.e. is lost when Larged is gained F). At 5th level you are full grown and gain the Large size (I 6). A full grown thurse is twice as tall and eight times as heavy a human. The first Extra Attack you receive from a class is exchanged for 1d10 HD. **Total 12.5**

Lesser Traits 5: resistance to Bludgeoning damage (X) Proficient in Great club (F), Powerful Build as per Goliath (this last trait is superseded by Large at 5th level (F)), 1d2 bludgeoning damage with unarmed strikes (F Opt as already paid for Large).

Notes: 'Thurse' is Old Anglo-Saxon for giant. This new demihuman is based on English tales of giants from the 11th-12th century. Thurse are Large but otherwise ordinary people. Giants sometimes emerge and interact with human society. Some live among humans. There are even tales of giants who became knights and some say St Christopher was a giant. If your table uses miniatures then 54mm scale humans make good Thurse around 28mm companions. Many historical wargame companies make 54mm scale metal miniatures. Alternatively, the HeroForge companies 3D printed miniatures allow you to design a human but print it at large scale. This race has had extensive playtesting as a key character in the author's home campaign.

GITHZERAI

**1/2 Medium humanoid (gith) Speed 30

Languages: Common and Gith

Dex+1, Int+1 (P 4).

Traits: Insight skill (P 2), *Mage hand* at will (X 2), Psychic strike +1d8 psychic damage to unarmed strikes, at 5th level this is raised to +2d8 psychic damage (I 4.5). **Total 12.5**

Lesser Traits 3: at 3rd level *Featherfall* and *Jump* both 3 uses replenished by a long rest. At 5th level *See Invisibility* 3 uses replenished by a long rest.

GORBEL, EVOLVED

* 1/2 Small Abberation Tool Use 3 (-2) Speed 5ft (! -9.75), Fly 40ft (F 10)

Languages: Deep Speech and Common.

Str +1, Dex+2, Int-1, Wis-1, Cha-1, (P 0).

Traits: bite 1d6+STR piercing reach 5ft and claw 1d4 slashing reach 15ft also reach 15ft for weapon attacks (! 3).

Elastic: the 15ft reach can be used with any action that takes a moment to perform, such as grabbing an object, before the elastic 'arms' of the Gorbel snap back. On a successful claw attack the the gorbel can choose to grapple the foe (automatic success) as a bonus action; if this option is chosen a Small or smaller foe is immediately drawn to within 5ft of the gorbel, if the opponent is Medium or larger the Gorbel is immediately drawn to within 5ft of the foe. The gorbel may then release the grapple as a free action or maintain it using the standard rules (I 6).

Burst: a gorbel that takes piercing or slashing damage must make a successful Con saving throw or burst. The DC for the saving throw equals 5 plus the damage taken from the attack. When the

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gorbel explodes, all creatures within 5 feet of it take 1d6+STR force damage, or half damage with a successful Dex save: DC=8+proficiency bonus+STR modifier (F 1). This kills the gorbel and destroys the corpse (I -52.5).

Rubbery: most gorbels don't live long but the rubbery hide of those that do is increasingly elastic and thick. When struck by a physical blow you may decide the damage bounces off using your reaction to reduce the damage by 1d8+CON, if this reduces a piercing or slashing hit to zero damage there is no chance of the damage causing you to explode. You may use this trait a number of times equal to your level, though only one die is ever applied to a hit. This trait is regenerated after a short or long rest (I 55).

Traits Total 12

Lesser traits 3: Darkvision 60ft (X), Resistance to Bludgeoning damage (X). All round vision, a gorbel's six eyes are on stalks enabling it to look all directions at once; this has no effect on dice rolls but may prove useful (!).

Notes: The gorbel was created to demonstrate how to handle high price progressive features. That said, like flumphs, gorbels would suit a science-fantasy or sword-and-planet genre setting. Gorbels first appeared in the 1e Fiend Folio, this race is based on an evolved version published in Fifth Edition Foes by Necromancer Games. A gorbel is a small red balloon-like Neutral aberration that flies by a combination of magical levitation and lighter-than-air gas. This combined mode of flight and the ability to drag a halfling indicates that a gorbel could fly in armour if anyone made it for them. Unfortunately for gorbels, the gas reacts with air when they are pierced creating an explosion of gas that buffets foes but rends the gorbel into tiny fragments. Playing a gorbel is for those who like to live on the edge, or is it? This explosive quality is carefully countered by the Rubbery trait so that a gorbel PC's chance of survival should be about the same as any other PC.

The Elastic trait moves a foe a bit like the Charger feat and also something like the roper's Reel. Burst has two components, an area damaging power and an effective hit point reduction. The latter is an effective reduction of 51.5HP (d8's for 20 class HD x 50% based on the assumption of failing the save half of the time) and price is therefore the same as subtracting the price of 5d20HD. Rubbery is designed as a counter to explosive. It was priced as a progressive version of the Goliath's Stone's Endurance using a d8 for 20 levels.

GREY OOZE, ANCIENT

* ½ LA0 JL8 Medium Ooze Tool Use 1 (I -3.25), Speech 1

Languages: Advanced telepathy at 5th. Extend blindsight range to 60ft (!)

STR +1, DEX -2, CON+3, INT -1, WIS-2, CHA -5 (P -12)

Traits: Speed 10 (! -9), Climb 10 (I 2), Resistances Acid, Cold and Fire (I 21), Blindsight 60ft at 5th (Blind beyond 60ft) (I 1.25), corrode metal (I 2), False appearance (I 1), pseudopod attack at 8th (I 5.5), psychic crush except only 2d6 damage at 5th at 11th level this is raised to 3d6 (I 2), Telekinesis (Mage Hand cantrip X 2). **Total 12.5.**

Lesser Traits 5: condition immunities: blinded, deafened, exhaustion, prone (I). Advanced telepathy.

Notes: According to the MM old grey oozes develop dim sentience and rudimentary psychic power. What if an ooze got older still? Given their origin, stone warped by chaotic forces, most Grey Oozes are chaotic. Emerging out of mindlessness without any socialization most are Neutral or Evil.

This was created to test the limits of the system.

That the ooze sinks in water is considered to more like switch than a trait. The gaining of a mind has caused the loss of immunity to charmed and frightened conditions. Telekinesis (Mage Hand) was my own addition to raise the total to within the allowed point range for LA0 and to aid in

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playability. The blindness beyond 60ft and lack of colour vision should be modeled with Disadvantage and Inspiration in the same manner Tool Use is. The Grey Ooze is unusual in that it is LA0 but the pseudopod attack requires JL8. The ooze cannot join the party until canon characters are 8th level and the ooze begins with 8 class levels. I suppose the pseudopod attack could have been made progressive lowering the JL but with Blindsight requiring 5th level anyway and the ancient age back-story this seemed inappropriate.

GRIMLOCK

* ½ LA0 JL5 Medium Humanoid (Grimlock) Speed 30 ft
STR+3, DEX+1, CON+1, INT-1, WIS-1, CHA-2 (P2)

Languages: Common and Undercommon

Traits: Blindsight 30ft with Blindsenses at 5th (I 1.25), Keen Hearing and Smell (X 4), stone camouflage (X 2), Proficiency in Stealth and Perception at 4th level (P 2.667) as well as the spiked bone club (X 0.5). **Total 12.417**

Lesser Traits: Can't be blinded (already blind) (I).

Notes: Blindsenses and lack of colour vision are treated much like Tool Use, when it is important it results in Disadvantage or Inspiration.

HALF-ELF VARIANT

***** or ***½ if half aquatic elf. Medium Humanoid Speed 30

Languages: Common, Elven, and any one other language. Charisma is raised by +1 (P 2)
Speed 30ft

Choose one subrace of elf. You gain all of the traits of that subrace including the ability score modifier and lesser traits. Note that you do not get the core Elf traits and modifiers, only those listed under your chosen elf subrace (PHB23-24 or aquatic elf above).

Traits: You gain two skills of your choice (P 4). Plus traits granted by your chosen elf subrace (C 6). **Total 12**

Lesser Traits 2: Darkvision 60ft (X), Fey Ancestry (PHB23) (X),

Notes: this can be used to make half aquatic elves for nautical campaigns, half drow for underdark settings etc. Now half elves have as many subraces as there are subraces on elves.

HALF-MER

***½ Medium Humanoid (Merfolk) Shore walker: the half-mer can take an action to transform between two physical forms, one with legs and a land speed of 30ft and the other with a fishy tail instead of legs, a swim speed of 30ft (F), and a land speed of 10ft.

Con+1, Cha+1 (P 4).

Languages: speaks Common, Aquan, and one other language of the player's choice

Traits: Amphibious (PHB305) (F 2). 'Humans of the sea': free choice of one feat. **Total 12**

Lesser Traits 3: Shore walker (F) One extra language (X) which is a free choice (X).

Notes: Half-Mer: when adjudicating magical effects the character counts as both a human and a merfolk, both a land creature and a marine creature.

KUO TOA

*½ Medium Humanoid (Kuo Toa) Speed 30 Swim 30 (F)

Languages: Undercommon and Common

Str+1, Cha-1 (P 0)

Traits: Natural Armour 11+DEX (I 0.05), Amphibious (F 2), Slippery (! 2), sunlight sensitivity (F 0), bite 1d4+STR piercing (X 1), proficient shield (F 2). At 3rd level you gain Otherworldly

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perception for 1 hour once recharged by a long rest. At 9th level this becomes at will (I 5). At 4th level gain proficiency in net (X 0.5) **Total: 12.55**

Lesser Traits 4: Darkvision 120ft (F, two lesser traits), Swim (F), also proficient in spear (X).

Notes: Kuo Toa Sticky Shield Glue: 10gp one bottle (1 Lb) contains enough glue to coat one shield. If the user keeps the shield away from dirt, sand, and general debris the glue lasts as much as 10 days. Water does not remove the glue. See MM199 for effect.

This design is 0.05 over budget. I could have left out the net but my players thought the net was a good cultural touchstone for the race and I agree.

MERFOLK

*½ Medium Humanoid (merfolk) Speed 10ft (! -9), Swim 40ft (I 1)

Dex+1, Con+2, Cha+1 (P 8).

Languages: Common and Aquan.

Traits: Perception skill (P 2). Proficient in spear, trident and net (X 1.5). Amphibious (PHB305) (F 2). 'Humans of the Sea': choose one feat (P 6). **Total: 11.5**

Lesser Traits 2: Spear proficiency (X), swim speed (F).

Notes: Merfolk appeared as a player character race for 2e in Dragon 250 in 1998. This race is designed for a campaign where the Merfolk PC will be spending at least some time out of water and interacting with land-dweller PCs. If playing partially on land, you should discuss how you and the referee imagine issues like thirst, dehydration, and jumping and how Disadvantage and Inspiration will be used to make sure you are on the same page. In a purely undersea campaign the land speed is worth 0pt, therefore remove 'Humans of the Sea' and the Perception skill.

MINOTAUR

** ½ LA3, JL5 Large Monstrosity (I 6) The first Extra Attack from a class is swapped for 1d10HD. Speed 40ft (X 1)

Languages: Abyssal and Common.

Str +4, Dex+0, Con +3, Int +0, Wis +3, Cha +0 (P 20).

Traits: natural armour 14 at 2nd level (I 0.8), Reckless (F 2.25), at 4th level proficient in Perception skill (P 1.333), Weapon proficiencies at 4th great axe (X 0.25), 2d10 racial HD (I 11). At 13th level gains Charge (MM223) but with a damage bonus of +1d8, this becomes +2d8 at 19th level, Charge only applies to gore attack (I 3). **Total 45.633**

Lesser traits 4: Darkvision 60ft, Labyrinthine Recall. Unarmed strike does 1d2 bludgeoning (I 0pt due to Large). Gore at does 1d8 initially then at 5th level 2d8 piercing reach 5ft (I 0pt as Large).

Note: The Charge trait was calculated as follows: the total DPR for a gore attack with Charge is 18, base price is the same as a DPR18 natural attack (9pt at 19th level). However we have already paid 7pt for the Large/gore so we subtract this from the charge price (9-7=2) but we leave the level requirement the same. We can also make the trait progressive by finding the level where a 3d8 (2d8 gore plus 1d8 charge) is allowed, 13th level.

The standard background for minotaurs given in the 5e MM is not conducive to them being PCs.

MYCONID

*½ Small Plant (becomes Medium at 3rd level), Speech 1, Tool Use 3 (I -1.5) Speed 20 (! -5.25)

No languages and cannot speak but Rapport Spores enable myconids to telepathically communicate with any creature that has a language. Myconids cannot vocalize at all. They cannot laugh and they cannot scream. Their telepathy enables the use of spells with verbal components.

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STR +0 (2-16 at level one, 3-20 later), INT +0 (2-16 at level one, 3-20 later), CHA +0 (2-10 at level one, 3-20 later) (P 0). Although the maximums allowed are raised after first level this in no way implies myconids obtain additional bonuses to ability scores beyond those available to all characters as they gain levels.

Traits: Woody and poisonous: Natural AC13+DEX (F 0.5). Fist does 1d4+STR bludgeoning and 1d4 poison damage. At 3rd level this changes to 2d4+STR bludgeoning and 1d4 poison. At 7th level this changes to 2d4+STR bludgeoning and 2d4 poison (I 5).

Spores: You can produce distress and rapport spores at will (I 0). At 2nd level you can produce pacifying spores, 3 uses recharged by a long rest (I 5.25). At 11th level you gain Hallucination spores like those of a sovereign at will (I 4.571). Where a save is associated with a spore power the DC is 8+proficiency bonus+CON.

Weakly psionic: you cannot be surprised if conscious (F 1.5). **Total: 12.446**

Lesser Traits 4: Darkvision 120ft (F two lesser traits), Distress Spores (I), Sun Sickness (I 0).

Notes: Sunlight sickness is unlikely to be much of a problem as the character can usually find shelter before death occurs. The poisonous fist is a Natural Weapon and as such cannot be used with rules applied to unarmed strikes. Myconid characters start out as 'sprouts' barely 3ft tall but growing rapidly, gaining a few inches every day. At 3rd level they have grown sufficiently to cross the threshold into Medium Size and become adults. Even then they don't stop growing. High level adults can be as tall as 8ft. PC Myconids never become sovereigns, to become a sovereign a myconid must be constantly living within a circle of its own kind and take on leadership of that group. Any PC that meets these criteria has retired from adventuring to become an NPC. Even being generous with myconid traits from the MM the race was underpowered hence the addition of 'Weakly psionic'.

OCTOPUS, AWAKENED GIANT.

*½ LA1 JL2 Medium Beast. Tool use 5 (as good as human hands) Speed 10ft (! -9) Swim 60ft (! 4)

Languages: Common and any one other language.

Str+2, Dex+1, Cha-3 (P 0).

Traits: Racial hit die 1d10 (I 5.5). Water breather (PHB309) but able to hold breath for one hour (MM326) (I 2). Under water camouflage (I 3). Tentacles 1d6 bludgeoning, reach 10ft, and DC is 8+proficiency bonus+STR modifier (otherwise as per MM326) (!I 3.25 including discount to damage for size). At 5th level becomes Large (I 6), tentacle reach extends to 15ft, and tentacle damage becomes 2d6. To counteract the effect Large can have on damage per round a giant octopus replaces their first Extra Attack from a class (like fighter at 5th) with a 1d10 hit die and associated increase in maximum hit points. At 7th level Ink cloud (MM326) once recharged by a long rest. At 13th level the ink cloud is recharged by a short or long rest (I 3.5). **Total 22.25**

Lesser Traits 3: Swim speed (F). Darkvision 60ft. One language a free choice (X)

Switches: Gills

Notes: An octopus is an alien. A solitary ambush predator with no need for friendship and incredible patience. You are never motivated by friendship, family ties, or love. In your bonds you only recognize the value of others' skills and resources. You might be motivated to protect your ocean home, by curiosity, or to amass gold to buy safety and food. The Hermit background would be a good fit.

That you have eight tentacles does not grant any extra attacks.

PARROT OR RAVEN, AWAKENED

* ½ Tiny Beast Tool Use 2 (I -3.25). Speed 10ft (! -9), Fly 50ft (F 11.75). Cannot fly in

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Moderate or Heavy armour (F -2.75).

Languages: Common, any one other language.

Str -4 {1-4}, Dex+2, Wis +1 (P -2).

Traits: +3 to initiative (P 1.5). Skills: Perception and Stealth (P 4). False appearance: looks like an ordinary parrot or raven (! 1). Ornery Bird: Advantage on saves against magic with Dex, Wis, Cha, Con (F 2). Exceptional Individual: One free choice skill (P 2) and feat (P 6) **Total 11.25**

Lesser Traits 4: one language is a free choice (X). Mimicry (PHB309) (F). Beak does unarmed 1 piercing damage (finesse) (!). The ability to communicate with ordinary parrots or crows and ravens (!). Additionally, a Raven has advantage of saves against poison and resistance to poison damage but only from ingested poisons (!).

Notes: Most of a bird's survivability is in her power of flight. The best character options are those that enable the bird to attack or aid at a distance. Having a flying speed before 6th level is exceptionally effective in certain circumstances and exceedingly dangerous in others. As a result, playing a bird requires special consideration by your DM who may disallow this choice."

QUICKLING

* ½ LA1 JL2 Tiny Fey (I -3.25). Speed 120 ft (! 18.75).

Languages: Common and Sylvan

STR -4 {1-8}, DEX +5, INT -1, CHA-3 (P -6)

Traits: Advantage on saving throws against traps (F 0.5), blurred movement (I 0.5) and 2d4 racial hit dice (I 5). At 7th level gain the Evasion trait (I 7). **Total 22.5**

Lesser Traits: Darkvision 60 ft (X), proficient in dagger (X).

Notes: The quickling race, though very supernatural in origin and chaotic evil, tends towards mischief rather than murder. Mischievous evil might be more acceptable to some play groups than bullying murderer evil. If not one can easily imagine a fickle fey sliding into chaotic neutral or chaotic good. This design includes the Blurred Movement trait described for Quicklings in VGM and cannot be used without that reference. If you included all the skills and good ability scores of the Quickling monster then LA would be 4. In this version I have trimmed away all the skills and reduced all the ability score adjustments by one to create a version playable at an earlier level. The resulting design fell between LA0 and LA1 so I added the advantage on save against traps to the the PC version. I really wanted to include this race however this is a very experimental design with many of the race's points concentrated in a trait whose price is derived from poor evidence, the 120 ft speed. Use with caution.

WORG

** ½ Large Monstrosity Tool Use 1 (I -4.25) Speed 50ft (F 2)

Languages: Common, Goblin, and Worg

Str +3, Dex+1, Con+1, Int-2, Cha-1 (P 4).

Traits: Natural AC12+DEX (I 0.2), proficient in Perception (P 2), bite 2d6 piercing (I 3.5), keen hearing and smell (X 4). **Total 11.45**

Lesser traits 3: Darkvision 60ft. Extra language (X). Unarmed strike does 1d2 bludgeoning (I Opt due to Large).

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APPENDIX B: RACE CREATION TABLES

These are also available as an excell spreadsheet.

CORE TRAIT LIST

Trait	Ev.	Pts	Part	Rule	References for Evidence
Speeds					
Default is Land Speed 30ft	P	Nil	2	PHB23	PHB23,31,34,39,41,43
extra +10ft speed granted by feat etc. not race	X	1	2	PHB168	PHB31,168
Speed 0	!	-9.9375	2	PHB181	$((\text{Area with radius speed})/(\text{area radius } 30) \times 13.25) - 13.25$
speed 5	!	-9.75	2	PHB181	$((\text{Area with radius speed})/(\text{area radius } 30) \times 13.25) - 13.25$
speed 10	!	-9	2	PHB181	$((\text{Area with radius speed})/(\text{area radius } 30) \times 13.25) - 13.25$
speed 15	!	-7.5	2	PHB181	$((\text{Area with radius speed})/(\text{area radius } 30) \times 13.25) - 13.25$
speed 20	!	-5.25	2	PHB181	$((\text{Area with radius speed})/(\text{area radius } 30) \times 13.25) - 13.25$
speed 25	X	-3	2	PHB181	PHB20,28,37
speed 35	F	0.5	2	PHB181	PHB24
speed 40	X	1	2	PHB181	PHB31,168
speed 45	I	1.5	2	PHB181	PHB24,31,168
speed 50	F	2	2	PHB181	EEPC5, $((\text{Area with radius speed})/(\text{area radius } 30) \times 1.25) - 1.25$
speed 55	!	3	2	PHB181	$((\text{Area with radius speed})/(\text{area radius } 30) \times 1.25) - 1.25$
speed 60	!	4	2	PHB181	$((\text{Area with radius speed})/(\text{area radius } 30) \times 1.25) - 1.25$
Speed 70	!	6	2	PHB181	$((\text{Area with radius speed})/(\text{area radius } 30) \times 1.25) - 1.25$
Speed 80	!	8	2	PHB181	$((\text{Area with radius speed})/(\text{area radius } 30) \times 1.25) - 1.25$
Speed 120	!	18.75	2	PHB181	$((\text{Area with radius speed})/(\text{area radius } 30) \times 1.25) - 1.25$
Aggressive	F	3	2	VGM120	VGM120 less useful than 60 speed and similar to other bonus actions and battlemaster maneuvers
Burrow speed 30 or lower if over 30 add speed cost above	!	4	2	MM8	Druid wildshape can burrow at 1st. More utility than climb
At 5th level Burrow speed 30 or lower if over 30 add speed cost above	!	2	2	MM8	Druid wildshape can burrow at 1st. More utility than climb
At 7th level Burrow speed 30 or lower if over 30 add speed cost above	!	0	2	MM8	Druid wildshape can burrow at 1st. More utility than climb
Climb speed 30 or lower if over 30 add speed cost above	F	2	2	MM8	PHB277
Climb speed 30 or lower at 3rd level. If over 30 add speed cost above	I	0	2	MM8	PHB277
Climb at full speed (as athlete feat)	F	1	2	PHB165	PHB31,165

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Climb does not cost you extra movement (as athlete feat and PHE) at 4th level	F	0.5	2	PHB165	PHB31,165
Swim speed 30 or lower, if over 30 add speed cost above	F	0	2	MM8	EEPC10,PHB66,212,66,243,EEPC5.
Wings equivalent to featherfall at will at 1st	I	2	2	PHB239	PHB31,168,239,DMG286
Wings equivalent to featherfall at will at 3rd	I	0	2	PHB239	PHB31,168,239,DMG286
Winged flight at first level. Add cost of (land Speed)x1.5 if over 30. speeds under 30 not change.	F	8.75	2	MM8	PHB66,243,EEPC5, VGM105. Probably more than radiant soul.
Fly 30 for one minute once per long rest. Cannot fly in Medium or Heavy Armour	I	0.75	2	MM8	VGM105,PHB66,243,EEPC5 less than radiant soul and endless flight. About 1/3 of a 32 round adventuring day
Fly speed at 6th level. Add speedx1.5 if over 30.	I	2	2	MM8	PHB66,243.
Fly speed at 8th level. Add speedx1.5 if over 30.	I	0	2	MM8	PHB66,243
Can't fly in Medium or Heavy Armour IF flight gained at 1st level	F	-2.75	2	EEPC5	EEPC5,PHB31,167. Based on Heavy armour prof and fit for aarakocra
Earthwalk	F	4	2	EEPC9	EEPC9
Feline Agility	F	0	2	VGM115	VGM115
Prone to stand only uses 5ft of movement	F	2	2	PHB165	PHB31,165
Prone to stand only uses 5ft of movement at 4th level	F	2	2	PHB165	PHB31,165
Ignore difficult terrain when Dash	F	3	2	PHB168	PHB31,168
At 4th level Ignore difficult terrain when Dash	F	2	2	PHB168	PHB165,168
Running jumps only need 5ft of movement (athlete feat)	F	1	2	PHB165	PHB31,165
Running jumps only need 5ft of movement (athlete feat) at 4th level	F	0.5	2	PHB165	PHB165
Size, Tool Use, & Reach	Ev.	Pts	Part	Rule	References for Evidence
Gargantuan size at 17th level if tool use 5 first three extra attacks replaced by d10HD	I	13.5	3	MM6-7,PHB176	EEPC11, PHB28,37,71(extra attacks),165 (feat w/ attacks),31,167(grappler)
Gargantuan size at 8th level if tool use 3 or 4 first three extra attacks replaced by d10HD	I	6	3	MM6-7,PHB176	EEPC11, PHB28,37,71(extra attacks),165 (feat w/ attacks),31,167(grappler)
Gargantuan size if tool use 1 or 2	I	-6.25	3	MM6-7,PHB176	EEPC11, PHB28,37,71(extra attacks),165 (feat w/ attacks),31,167(grappler)
Huge size at 11th level if tool use 5 first two extra attacks replaced by d10HD	I	10.75	3	MM6-7,PHB176	EEPC11, PHB28,37,71(extra attacks),165 (feat w/ attacks),31,167(grappler)
Huge size at 5th level if tool use 3 or 4 first two extra attacks replaced by d10HD	I	5	3	MM6-7,PHB176	EEPC11, PHB28,37,71(extra attacks),165 (feat w/ attacks),31,167(grappler)
Huge size if tool use 1 or 2	I	-5.25	3	MM6-7,PHB176	EEPC11, PHB28,37,71(extra attacks),165 (feat w/ attacks),31,167(grappler)
Large size at 5th level if tool use 5 first extra	I	6	3	MM6-	EEPC11, PHB28,37,71(extra attacks),165 (feat w/ attacks),31,167(grappler)

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attack replaced by a d10HD				7,PHB176	
Large size at 3rd level if tool use 3 or 4 first extra attack replaced by a d10HD	I	3.5	3	MM6-7,PHB176	EEPC11, PHB28,37,71(extra attacks),165 (feat w/ attacks),31,167(grappler)
Large size if tool use 1 or 2	I	-4.25	3	MM6-7,PHB176	EEPC11, PHB28,37,71(extra attacks),165 (feat w/ attacks),31,167(grappler)
Powerful Build, (Medium, Double carrying capacity)	X	1	2	EEPC11	EEPC11,VGM109,119,120,PHB28,37,71(extra attacks),165 (feat w/ attacks),31,167(grappler)
Medium, takes up spaces as per Large on the Grid, 12 Mediums can surround	!	-1	3	PHB191,192	Guess
Medium and tool use 3 or 4	I	-1.5	3	Article	PHB28,37,71(extra attacks),31,165 (feat w/ attacks),167(grappler)
Medium and tool use 1 or 2	I	-3.25	3	MM6-7	PHB28,37,71(extra attacks),31,165 (feat w/ attacks),167(grappler)
Small size if tool use 3 or above	X	-1	2	PHB28	PHB28,37,71(extra attacks),31,165 (feat w/ attacks),167(grappler)
Small size if Tool use 1 or 2	I	-4.25	3	MM6-7	PHB28,37,71(extra attacks),31,165 (feat w/ attacks),167(grappler)
Tiny size any tool use	I	-3.25	3	MM6-7	PHB28,37,71,(extra attacks),77 (Martial Arts),31,165 (feat w/ attacks),167, 170 (Feats)
Centaurid (when determining points for size treat as one size lower if tool use 3 or above)	I	Special	3	MM38	MM38,PHB28,37,71(extra attacks),31,165 (feat w/ attacks),167(grappler)
Note: if multiple reaches are listed only pay for the greatest reach					
Long limbed as Bugbear	F	0.5	2	VGM119	PHB31,147,168,170. VGM119
Reach 10ft	I	1	3	PHB195	PHB31,147,168,170. VGM119
Reach 15	!	1.5	3	PHB195	Same progression as speed
Reach 20	!	2	3	PHB195	Same progression as speed
reach 25	!	3	3	PHB195	Same progression as speed
Languages	Ev.	Pts	Part	Rule	References for Evidence
extra language	X	0	2	PHB24	PHB24,31,39,167, DMG289
one language of the two assumed is a free choice	X	0	2	PHB31	PHB31,
Speech of Beast and Leaf	I	2	2	VGM107	VGM107,PHB37
Silent Speech	F	0.5	2	SCAG110	SCAG110
Telepathy at 1st	I	2	2	MM9	PHB24,31,39,167,224 more than an extra language and Comprehend Languages
Telepathy at 3rd	I	0	2	MM9	PHB24,31,39,167,224 more than an extra language and Comprehend Languages
Advanced Telepathy at 3rd	I	2	2	MM133	PHB24,31,39,167,224 more than an extra language and Comprehend Languages
Advanced Telepathy at 5th	I	0	2	MM133	PHB24,31,39,167,224 more than an extra language and Comprehend Languages
Speak with small beasts	F	5	2	PHB37	PHB37
Awakened beast's and bullywug's speak with very specific kind of animal	I	0	2	PHB261	PHB261,37
Ability Scores	Ev.	Pts	Part	Rule	References for Evidence
+1 Ability Score	P	2	2	PHB13,	PHB31,165,20,23,24,28,34,37,39,41,43,166,167,168,170, EEPC5,7,9,11

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				173-179	
Senses. See also Monster Traits.	Ev.	Pts	Part	Rule	References for Evidence
Accurate recall 1month	F	1	2	PHB167	PHB31,167
Darkvision 30ft	I	0	2	MM9	PHB305,20,23,37,39,41,43,
Darkvision 60ft	X	0	2	PHB20	PHB20,23,37,39,41,43,EEPC11, VGM115, 119, 120
Superior Darkvision +60ft	F	0	2	PHB24	PHB24
Dim light no disadvantage on sight checks	F	0	2	PHB170	PHB31,170
Blindsight but blind beyond that range	I	special	2	MM8	PHB230, better than Darkvision but very limited beyond range frequently. Price as blindsight but award inspiration when range is an issue
Blindsight 10 at 5th (same point value at higher levels)	I	0.14	2	MM8	PHB230, better than Darkvision and last dot point of Alert so treat as a 3rd level combat related spell subtract cost of Darkvision spell, ajsted for area by square rule.
Blindsight 30 at 5th (same point value at higher levels)	I	1.25	2	MM8	PHB230, better than Darkvision and last dot point of Alert so treat as a 3rd level combat related spell subtract cost of Darkvision spell
Blindsight range extended to 60.	!	0	3	MM243	PHB24, kind of like extended Darkvision but realy just a guess. PHB230, better than Darkvision and last dot point of Alert so treat as a 3rd level combat related spell subtract cost of Darkvision spell
Cannot be surprised while concious	F	1.5	2	PHB165	PHB31,165
Cannot be surprised while concious at 4th level	F	0.75	2	PHB165	PHB165
Dangersense as Barbarian at 2nd	F	2.25	2	PHB48	PHB47,48
Advantage on Perception and Investigation for secret doors	F	1.5	2	PHB166	PHB31,166
Always know North	F	2	2	PHB167	PHB31,167
at 4th level Always know North	F	1	2	PHB167	PHB165,167
Hidden foes no advantage	F	2	2	PHB165	PHB31,165
Hidden foes no advantage at 4th level	F	0.75	2	PHB165	PHB165
Initiative +1	F	0.5	2	PHB165	PHB31,165
Keen (Sense). Price is per sense.	X	2	2	MM182	PHB31,165,170, EEPC7
Always knows the hours to sunrise or sunset	F	1	2	PHB167	PHB31,167
At 4th level Always knows the hours to sunrise or sunset	F	0.5	2	PHB167	PHB165,167
At 4th level 1month accurate recall	F	0.5	2	PHB167	PHB165,167
Read Lips	F	1	2	PHB168	PHB31,168
at 4th level Read Lips	F	0.5	2	PHB168	PHB165,168
Passive Perception & investigation +1	F	0.6	2	PHB168	PHB31,168
At 4th level Passive Perception & investigation +1	F	0.3	2	PHB168	PHB165,168
Sunlight sensitive PHB	F	-7	2	PHB24	PHB24

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Sunlight sensitive SC	X	0	2	SC104	SC104, VGM119
Defensive	Ev.	Pts	Part	Rule	References for Evidence
Prof save in one ability score	P	4	2	PHB178	PHB31,168
At 4th level Prof save in one ability score	P	2	2	PHB178	PHB165,168
Advantage on saves against magic for one ability score from this list INT WIS CHR	F	1	2	PHB37	PHB31,37,166
Advantage on saves against magic for one ability score from this list STR DEX CON	F	0		VGM120	
Magic resistance (pt listed and three lesser traits).	F	3	2	VGM120	PHB31,37,166,168.VGM120
Nimble Escape (Goblin) disengage or hide as a bonus action	F	2.5	2	MM166	VGM119, PHB31,167,168,170.
Prof light armour	P	4	2	PHB144	PHB20,31,167
At 4th level Prof light armour	P	2	2	PHB144	PHB20,165,167
Prof Medium Armour. (Requires proficiency in light armour)	F	1	2	PHB144	PHB20,31,168
At 4th level Prof Med Armour	F	0.5	2	PHB144	PHB20,165,168
Prof Shields	F	3	2	PHB144	PHB20,31,168
At 4th level Prof Shields	F	1.5	2	PHB144	PHB20,165,168
Prof Heavy Armour (Requires proficiency in light and medium armour)	P	4	2	PHB144	PHB31,167
Prof Hvy Armour at 4th level	P	2	2	PHB144	PHB165,167
Natural armour 11+DEX	I	0.05	2	MM7	AC10+Dex=0, VGM113 indicates estimate from profs PHB20,31,165,167,168 was out by 12x, Turtle adds a third data point enabling a curve to be found.
Natural Armour to 12+DEX	I	0.2	2	MM7	AC10+Dex=0, VGM113 indicates estimate from profs PHB20,31,165,167,168 was out by 12x, Turtle adds a third data point enabling a curve to be found.
Natural armour 13+DEX	F	0.5	2	VGM113	AC10+Dex=0, VGM113 indicates estimate from profs PHB20,31,165,167,168 was out by 12x, Turtle adds a third data point enabling a curve to be found.
Natural Armour 14+DEX required level 2	I	0.8	2	MM7	AC10+Dex=0, VGM113 indicates estimate from profs PHB20,31,165,167,168 was out by 12x, Turtle adds a third data point enabling a curve to be found.
Natural Armour 15+DEX at 3rd level	I	1.25	2	MM7	AC10+Dex=0, VGM113 indicates estimate from profs PHB20,31,165,167,168 was out by 12x, Turtle adds a third data point enabling a curve to be found.
Natural Armour 16+DEX at 4th level	I	1.8	2	MM7	AC10+Dex=0, VGM113 indicates estimate from profs PHB20,31,165,167,168 was out by 12x, Turtle adds a third data point enabling a curve to be found.
Natural armour 17+Dex at 5th level	F	2.5	2	MM7	AC10+Dex=0, VGM113 indicates estimate from profs PHB20,31,165,167,168 was out by 12x, Turtle adds a third data point enabling a curve to be found.
Natural Armour 18+DEX at 10th level	I	3.2	2	MM7	AC10+Dex=0, VGM113 indicates estimate from profs PHB20,31,165,167,168 was out by 12x, Turtle adds a third data point enabling a curve to be found.
Natural Armour 19+DEX at 13th level	I	4	2	MM7	AC10+Dex=0, VGM113 indicates estimate from profs PHB20,31,165,167,168 was out by 12x, Turtle adds a third data point enabling a curve to be found.
Natural Armour 20+DEX at 16th level	I	5	2	MM7	AC10+Dex=0, VGM113 indicates estimate from profs PHB20,31,165,167,168 was out by

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					12x, Turtle adds a third data point enabling a curve to be found.
Cannot apply DEX to AC (This also removes the level requirement on Natural AC)	F	-0.25	2	Turtle	Turtle. Has to be less than +1 DEX, DEX is used for Skills, saves, AC, and initiative therefore use 2/4
No benefit from wearing armour if Natural AC is base 17 or higher, does not affect shield use	F	-0.25	2	Turtle	The best worn armour is only 18 and gives disadvantage to Dex (Stealth)
Turtle Shell Defense Trait	F	0	2	Turtle	Since entering the shell is volutary and the penalites for doing so are so severe it's obvous this is a Opt trait
A failed ranged attack from hiding does not reveal your position	F	4	2	PHB170	PHB31,170
At 4th level a failed ranged attack from hiding does not reveal your position	F	2.5	2	PHB170	PHB165,170
While in Hvy armour -3damage from non-magical bludgeoning, slashing, and piercing	X	4	2	PHB167	PHB31,167
At 4th level While in Hvy armour -3damage from non-magical bludgeoning, slashing, and piercing	X	2	2	PHB167	PHB165,167
Lucky (halfling)	F	3.5	2	PHB28	PHB28
Brave: Adv v Fright	F	2	2	PHB28	PHB28
halfling nimbleness	F	4	2	PHB28	PHB28
Medium armour does not disadv. Stealth checks	F	5	2	PHB168	PHB31,168
At 4th level Medium armour does not disadv. Stealth checks	F	3.5	2	PHB168	PHB165,168
Medium armour up to +3 from dex	F	1	2	PHB168	PHB31,168, Less than +1 to an ability score
At 4th level Medium armour up to +3 from dex	F	0.5	2	PHB168	PHB165,168, Less than +1 to an ability score
Unarmoured Defense	I	1	2	PHB48	PHB47
If wielding a separate melee weapon in each hand +1AC	F	2	2	PHB165	PHB31,165
At 4th level If wielding a separate melee weapon in each hand +1AC	F	1	2	PHB165	PHB165
Advantage on saves v. spells if the caster is within 5ft	F	2	2	PHB168	PHB31,168
At 4th level Advantage on saves v. spells if the caster is within 5ft	F	1	2	PHB168	PHB165,168
Attempt at melee attack prevents foes AoO	F	2	2	PHB168	PHB31,168
At 4th level Attempt at melee attack prevents foes AoO	F	1	2	PHB168	PHB165,168
Attacks on mount may be redirected to you	F	2	2	PHB168	PHB31,168
At 4th level Attacks on mount may be redirected to you	F	1	2	PHB168	PHB165,168
Mount's dex save for half become save for none	F	2	2	PHB168	PHB31,168
When you are at 4th level your Mount's dex	F	1	2	PHB168	PHB165,168

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save for half become save for none					
Shield AC bonus added to Dex saves targeting you only	F	2	2	PHB170	PHB31,170
At 4th level Shield AC bonus added to Dex saves targeting you only	F	1	2	PHB170	PHB165,170
Use reaction to make save for 1/2 save for nil using shield	F	2	2	PHB170	PHB31,170
At 4th level use reaction to make save for 1/2 save for nil using shield	F	1	2	PHB170	PHB165,170
Advantage on saves v. poison	X	0.5	2	PHB20	PHB20,28
Resistance to poison damage (only)	X	0	2	PHB20	PHB20,28,31,34,43,166,DMG287, VGM105
Resistance to Necrotic and Radiant damage	X	0	2	VGM105	VGM105, PHB20,28,31,34,43,166,DMG287. Multiple Asimar subraces
Damage Resistance vs one specific source (eg traps) or type (eg fire)	X	0	2	PHB166	PHB20,28,31,34,43,166,DMG277,287
Damage Resistance vs 2 or more specific sources (eg traps) or types (eg fire) (except Radiant and Necrotic)	I	Special	2	PHB166	PHB20,28,31,34,43,166,DMG277,287. Use table DMG277 to figure extra effective HP at all levels, sum and compare to HD costs. See article. Unlike monsters 2 or more rather than 3 or more, err on the side of caution.
Damage immunity Poison	F	1	2	VGM120	VGM120 PHB20,28,31,34,43,166,DMG277,287, VGM105 More than a damage resistance (type). No effect on a Monster's challenge (this would normally be Opt). Less than 3 or more immunities.
Damage immunity (type) one only OR Radiant AND Necrotic	I	1	2	MM8	PHB20,28,31,34,43,166,DMG277,287, VGM105 More than a damage resistance (type). No effect on a Monster's challenge (this would normally be Opt). Less than 3 or more immunities.
Damage Immunity vs 2 or more specific sources (eg traps) or types (eg fire)	I	Special	2	PHB166	PHB20,28,31,34,43,166,DMG277,287. Use table DMG277 to figure extra effective HP at all levels, sum and compare to HD costs. See article. Unlike monsters 2 or more rather than 3 or more, err on the side of caution.
Fey Ancestry Adv. Charm/sleep	X	0	2	PHB23	PHB23
Advantage on saves vs a specific source or damage type.	F	0.5	2	PHB166	PHB31,166
Evasion like a rogue at 7th	I	7	3	PHB96	PHB95 and rough class analysis
Adv saves v traps	F	0.5	2	PHB166	PHB31,166
Offensive	Ev.	Pts	Part	Rule	References for Evidence
wpn prof choose any 1	P	1	2	PHB14	PHB31,170
At 4th level wpn prof choose any 1	P	0.5	2	PHB14	PHB165,170
Weapon prof Simple Melee	X	0	2	PHB14	PHB20,23,24,31,170
At 4th level Weapon prof Simple Melee	X	0	2	PHB14	PHB165,170
Weapon Prof Simple Ranged	X	0	2	PHB14	PHB20,23,24,31,170
At 4th level Weapon Prof Simple Ranged	X	0	2	PHB14	PHB165,170
Weapon Prof Martial Melee	X	0.5	2	PHB14	PHB20,23,24,31,170
At 4th level Weapon Prof Martial Melee	X	0.25	2	PHB14	PHB165,170

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Weapon Prof Martial Ranged	X	1	2	PHB14	PHB20,23,24,31,170
At 4th level Weapon Prof Martial Ranged	X	0.5	2	PHB14	PHB165,170
Advantage on attack in a specific circumstance	I	2	2	varies	PHB31,168
W/ prof. broad group weapons -5 to hit for +10damage (eg. 2h or ranged)	F	4	2	PHB170	PHB31,170
At 4th level W/ prof. broad group of weapons -5 to hit for +10damage	F	2	2	PHB170	PHB165,170
AoO v foes who enter reach of your polearm	F	3	2	PHB168	PHB31,168
Grovel Cower and beg	F	10	2	VGM119	VGM119
Necrotic Shroud	F	3.75	2	VGM105	VGM104,105
At 4th level AoO v foes who enter reach of your polearm	F	2	2	PHB168	PHB165,168
Pin grappled creature	F	3	2	PHB167	PHB31,167
At 4th level Pin grappled creature	F	1.5	2	PHB167	PHB165,167
Pack tactics	F	3	2	VGM119	PHB31,168, VGM119
Radiant Consumption	F	3.75	2	VGM105	VGM104,105
Radiant Soul	F	-1.75	2	VGM105	VGM104,105,PHB66,243,EEPC5. Probably less than flight at will
Add +1 damage/level all spells and attacks for one minute per long rest	F	0.25	2	VGM105	VGM104,105,PHB66,243,EEPC5. Radiant soul subtract the one minute of flight
Tentacles DC13+STR see octopus. Pay for damage separately	I	2	2	MM326	PHB31,167,168,170 bonus attack with trigger circumstance.
Ignore load if prof in crossbow used	F	2	2	PHB165	PHB31,165
No disad. On ranged within 5' of foe	F	2	2	PHB165	PHB31,165
If 1h attack bonus loaded x-bow attack	F	2	2	PHB165	PHB31,165
Bonus attack with a trigger or circumstance	P	2	2	varies	PHB31,167,168,170
Fury of the Small	F	5.5	2	VGM119	VGM119, better than bonus attack with trigger PHB31,167,168,170
2wpns non-light	F	2	2	PHB165	PHB31,165,167,168,170. Similar to bonus attack with circumstance
2x draw/stow one handed weapons	F	2	2	PHB165	PHB31,165
At 4th level 2x draw/stow	F	1	2	PHB165	PHB165
bonus action attack if crit or reduce foe to 0hp	F	2	2	PHB167	PHB31,167
battlemaster maneuvers	F	2	2	PHB74	PHB31,168
At 4th level battlemaster maneuvers	F	1.5	2	PHB74	PHB165,168
one superiority die d6	F	2	2	PHB73	PHB31,168
at 4th level one superiority die d6	F	1	2	PHB73	PHB165,168
Reaction to melee attack if foe within 5ft casts spell	F	2	2	PHB168	PHB31,168
If damage a foe while spell casting disadv. Concentration	X	2	2	PHB168	PHB31,168,170

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At 4th level If damage a foe while spell casting disadv. Concentration	X	1	2	PHB168	PHB165,168,170
Bonus action attack with blunt end of 'polearm'	F	3	2	PHB168	PHB31,168
At 4th level bonus action attack with blunt end of 'polearm'	F	2	2	PHB168	PHB165,168
If hit creature with AoO foe speed=0 for turn	F	2	2	PHB169	PHB31,169
At 4th level if hit creature with AoO foe speed=0 for turn	F	1	2	PHB169	PHB165,169
Creatures within 5ft no benefit from disengage	F	2	2	PHB170	PHB31,170
At 4th level Creatures no benefit from disengage	F	1	2	PHB170	PHB165,170
Melee attack as bonus action if foe attacks another within 5ft of you	F	2	2	PHB170	PHB31,170
No disad. Ranged wpns at long range	F	0	2	PHB170	PHB31,170
Ranged weapons ignore half and 3/4 cover	X	2	2	PHB170	PHB31,170
If use attack action bonus action can shove w/ shield	F	2	2	PHB170	PHB31,170
attack with unarmed or improv. Allows grapple bonus action	F	4	2	PHB170	PHB31,170
At 4th level attack with unarmed or improv. Allows grapple bonus action	F	1.5	2	PHB170	PHB165,170
Savage attacks, Half Orc	F	2	2	PHB41	PHB41
Surprise Attack as per Bugbear	F	2.5	2	VGM119	VGM119
Hungry Jaws	F	0	2	VGM113	VGM113
Adv to hit unmounted foes smaller than mount	F	2	2	PHB168	PHB31,168
Note: only pay for the the most damaging natural weapon					
Make an Unarmed Strike or Natural weapon Finesse. The weapon must be under the max. damage for finesse	I	0	3	PHB147	PHB20,23,24,31,149,170. Maximum damage for finesse weapons by Size Tiny 1, Small or Medium 1d8, Large 2d8, Huge 2d8, Gargantuan 4d8
All Unarmed strike or natural attacks inflicts 0 (min 0 damage), or 0 to most and 1 to Tiny foes (DPR less than 1)	I	-0.5	2	MM10	PHB31,71(extra attacks),77,170. Inverse of 1pt to 1d2.
Unarmed strike or Natural Weapn inflicts 1+STR (DPR1)	I	0	2	MM10	PHB31,71(extra attacks),77,170
Unarmed strike or Natural Weapn inflicts 1d2 (DPR 1.5 or less)	I	0	2	MM10	PHB31,71(extra attacks),77,170
Unarmed strike or Natural Weapn inflicts 1d3 (DPR 2 or less)	I	0	2	MM10	PHB31,71(extra attacks),77,170
Unarmed strike or Natural Weapn inflicts 1d4 (DPR2.5 or less)	X	0	2	MM10	PHB31,71(extra attacks),77,170, Turtle.
At 4th level Unarmed Strike Natural Weapn	F	0	2	MM10	PHB71(extra attacks),77,165,170

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inflicts 1d4 (DPR2.5 or less)					
Unarmed strike or Natural Weapon inflicts 1d6 (DPR3.5 or less)	F	1.5	2	MM10	PHB31,71(extra attacks),77,170, VGM113
Natural Weapon inflicts 1d8 (DPR4.5 or less)	F	2	2	MM10	PHB31,71(extra attacks),77,170
Natural Weapon inflicts 1d10 (DPR5.5 or less)	F	2.5	2	MM10	PHB31,71(extra attacks),77,170
Natural Weapon inflicts 1d12 (DPR 6.5 or less)	I	3	2	MM10	PHB31,71(extra attacks),77,170
Natural Weapon inflicts 2d6 (DPR 7.5 or less)	I	3.5	2	MM10	PHB31,71(extra attacks),77,170
Natural Weapon DPR7.27 or less at 2nd	I	3.75	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Natural Weapon inflicts 3d4 at 3rd level (DPR 8.17 or less)	I	4	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Natural Weapon DPR8.71 at 4th	I	4.25	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Natural Weapon inflicts 2d8 at 5th level (DPR9.22 or less)	I	4.5	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Natural Weapon DPR9.70 at 6th level	I	4.75	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Natural weapon inflicts 4d4 at 7th level (DPR 10.42 or less)	I	5	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Natural Weapon inflicts 3d6, 2d10, or 1d20 at 8th level (DPR 11.37 or less)	I	5.5	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Natural Weapon DPR 12.26 or less at 9th level	I	5.75	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Natural Weapon DPR 12.45 or less at 10th level	I	5.75	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Natural Weapon inflicts 5d4 or 2d12 at 11th level (DPR13.44 or less)	I	6	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Natural Weapon inflicts 4d6 or 3d8 at 13th level (DPR 14.06 or less)	I	7	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Natural Weapon DPR 14.67 or less at 14th level	I	7.25	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Natural Weapon inflicts 6d4 at 15th level (DPR 15.34 or less)	I	7.5	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Natural Weapon inflicts 5d6, 7d4 or 3d10 at 17th level (DPR 17.59 or less)	I	8.5	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Natural Weapon inflicts 8d4 at 18th level (DPR 17.70 or less)	I	8.5	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Natural Weapon inflicts 4d8 at 19th level (DPR 18.36 or less)	I	9	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Natural Weapon inflicts DPR 19.1 or less at 20th level	I	9.25	3	MM10	PHB71(extra attacks),average damage per round progression of four basic classes.
Damaging powers (inc. spells that inflict damage)	Ev.	Pts	Part	Rule	References for Evidence
Foundation: A damaging power is NOT an attack and cannot be combined with extra attacks feature. Generally, a power uses an action and therefore typically replaces the damage the character might do with an attack. Damaging powers are based on average damage done by power over three rounds the DPR. This base is then modified by a series of multipliers					
See separate sheet!	special	special	2	special	special

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Examples					
Dragonborn breath weapon	P	6	2	PHB34	PHB24,34,43,168,170,211,220,221,242,250,266,269,271,275,EEPC10
High elf damaging wizard cantrips	X	2	2	PHB201	PHB24,34,43,168,170,211,220,221,242,250,266,269,271,275,EEPC10
Tiefling's Hellish rebuke cast as 2nd level spell at 3rd	F	0.5	2	PHB43,250	PHB24,34,43,168,170,211,220,221,242,250,266,269,271,275,EEPC10
Young brass dragon fire breath doing 12d6 at 17th level	I	11	2	MM105	PHB24,34,43,168,170,211,220,221,242,250,266,269,271,275,EEPC10
Young bronze dragons lightning breath at full damage at 17th level	I	24.75	2	MM108	PHB24,34,43,168,170,211,220,221,242,250,266,269,271,275,EEPC10
Young copper dragons breath weapon full damage 9d8 at 14th level	I	10.5	2	MM111	PHB24,34,43,168,170,211,220,221,242,250,266,269,271,275,EEPC10
Young gold dragons breath weapon full damage at 17th level	I	30.75	2	MM115	PHB24,34,43,168,170,211,220,221,242,250,266,269,271,275,EEPC10
Young silver dragons breath weapon full damage at 17th level	I	30	2	MM118	PHB24,34,43,168,170,211,220,221,242,250,266,269,271,275,EEPC10
Gorbel Burst	F	1	2	See article	PHB24,34,43,168,170,211,220,221,242,250,266,269,271,275,EEPC10
Yuan-ti pureblood Poison spray cantrip 3/long rest	I	1.5	2	PHB266	PHB24,34,43,168,170,211,220,221,242,250,266,269,271,275,EEPC10
Skill and Tool Related	Ev.	Pts	Part	Rule	References for Evidence
Skill proficiency	P	2	2	PHB174	PHB23,31,39,41,170
Skill proficiency at 4th level	P	1.33333 3333	2	PHB174	PHB23,39,41,165,170
Tool proficiency	X	0	2	PHB154	PHB20,31,170. DMG289 Though available through Skilled solving dwarf gives us 0pt
Cunning artisan	F	0	2	VGM113	VGM113
stone cunning 2x prof bonus INT(History) checks about a specific subject	X	0.5	2	PHB20	PHB20,31,37,170
Artificer's lore 2x prof bonus INT(History) checks about a specific subject	X	1	2	PHB37	PHB20,31,37,170
2x prof bonus to INT(History) checks about a specific subject	X	0.75	2	PHB37	PHB20,31,37,170
Create cipher	F	4	2	PHB167	PHB31,167
At 4th level Create cipher	F	2	2	PHB167	PHB165,167
Normal speed trap search	F	4	2	PHB166	PHB31,166
Advantage on skill(ability score) in specific circumstance	X	2	2	PHB7,137	PHB31,165,170, EEPC7
Advantage on skill(ability score) in specific circumstance at 4th level	X	1	2	PHB7,137	PHB165,170, EEPC7
Try to hide when lightly obscured	F	2	2	PHB170	PHB31,170,24. More than mask of the wild
At 4th level can try to hide when lightly obscured	F	1.5	2	PHB170	PHB165,170,24. More than mask of the wild
Adv on Deception and Performance for disguise	F	4	2	PHB165	PHB31,165

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Adv on Deception and Performance for disguise at 4th level	F	2	2	PHB165	PHB165
Blend into fog, mist, falling snow, hail, or heavy rain	F	1.5	2	RPGrevie w26	PHB24, based on Mask of the wild.
mask of wild	F	1.5	2	PHB24	PHB24
Stone Camouflage	F	7	2	EEPC7	EEPC7
Tinker	F	6	2	PHB170	PHB31,170
Naturally Stealthy	F	0.5	2	PHB28	PHB28
Healing HD & HP	Ev.	Pts	Part	Rule	References for Evidence
+1hp/level starting at level one	F	7	2	PHB20	PHB20
+2hp/level retrograde as feat	P	6	2	PHB165	PHB20,31,165
+2hp/level retrograde as feat at 4th level	P	4	2	PHB165	PHB20,31,165
Base price per HP but see below if gained in the first tier of play.	I	0.1	2	PHB20	PHB20,31,165
Additional cost per bonus hp if gained at levels 1 to 3	I	1.66666 6667	2	Nil.	PHB20,31,165
Minimum HD roll to regain is ConModx2 (min2)	P	4	2	PHB166	PHB31,166
at 4th level Minimum HD roll to regain is ConModx2 (min2)	P	2	2	PHB166	PHB165,166
Healing Hands	F	0.25	2	VGM105	VGM105, PHB84, 231 Based on paladin abilities
Stablise with healers kit also +1hp	F	3	2	PHB167	PHB31,167
At 4th level Stablise with healers kit also +1hp	F	2	2	PHB167	PHB165,167
healer's kit 1d6+4+(#HD) healed	F	3	2	PHB167	PHB31,167
At 4th level healer's kit 1d6+4+(#HD) healed	F	2	2	PHB167	PHB165,167
Stone's Endurance (1d4+CON)	I	1.25	2	EEPC11	EEPC11, less than a d4 HD.
Stone's Endurance (1d6+CON)	I	2	2	EEPC11	EEPC11, less than a d6 HD.
Stone's Endurance (1d8+CON)	I	2.75	2	EEPC11	EEPC11, less than a d8 HD.
Stone's Endurance (1d10+CON)	I	3.5	2	EEPC11	EEPC11, less than a d10 HD.
Stone's Endurance (1d12+CON)	F	3	2	EEPC11	EEPC11, less than a d12 HD.
Stone's Endurance (1d20+CON)	I	7	2	EEPC11	EEPC11, less than a d20 HD.
Relentless Endurance	F	2	2	PHB41	PHB41
HD only available if LA1+	Ev.	Pts	Part	Rule	References for Evidence
HD1d4 (or 3hp) +Con	I	2.5	3	PHB12	PHB20,47,65,113,168,170,230
HD1d6 (or 4hp)+Con	I	3.5	3	PHB12	PHB20,47,65,113,168,170,230
HD1d8 (or 5hp)+Con	I	4.5	3	PHB12	PHB20,47,65,113,168,170,230
HD1d10 (or 6hp)+Con	I	5.5	3	PHB12	PHB20,47,65,113,168,170,230

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HD1d12 (or 7hp)+Con	I	6.5	3	PHB12	PHB20,47,65,113,168,170,230
HD1d20 (or 11hp)+Con	I	10.5	3	PHB12	PHB20,47,65,113,168,170,230
Spells	Ev.	Pts	Part	Rule	References for Evidence
Unless noted all spells are 1 use recharged by a long rest. IF not listed use the 'uses' multiplier from damaging powers for more frequent uses					
First check this list of canon race spells					
cantrip at will (as per Genasai, Aasimar, high elf and forest gnome)	X	2	2	PHB201	PHB24,37,43,DMG287,VGM105,120
cantrip 1/long rest	I	1	2	PHB201	PHB24,37,43,DMG287. Less than at will cantrip or 1st level spell at 1st level
Animal friendship snakes only at will	F	0	2	PHB212, VGM120	PHB24,37,43,DMG287,VGM105,120. similar to a cantrip but rarely useful
Blindness/Deafness at 4th level (Svrfneblin Magic Feat)	F	0	2	PHB219	SCAG115, EEPC7
Blur at 4th level (Svrfneblin Magic Feat)	F	0	2	PHB219	SCAG115, EEPC7
At 3rd Level Create or Desttroy water as a 2nd lvel spell (Genasai)	F	2	2	PHB229	EEPC10
Darkness at 5th (as per Drow and Tiefling)	X	3.5	2	PHB230	PHB24, 43
At 5th level Daylight as a 3rd level spell (as Aasimar)	F	4	2	PHB230	DMG287
Disguise Self at 4th level (Svrfneblin Magic Feat)	F	0	2	PHB233	SCAG115, EEPC7
Faerie fire at 3rd level (as per drow)	F	3.5	2	PHB239	PHB24
Fey Step: Misty step at 1st. 2nd level spell at 1st recharged by a short or long rest	F	2	2	PHB201- 205	DMG286
Hellish rebuke as a second level spell at 3rd level (Tiefling)	F	0.5	2	PHB250	PHB43
At 3rd level Lesser Restoration (as Aasimar)	F	0	2	PHB255	DMG287
Non-detection at will at 4th level (Svrfneblin Magic Feat)	F	4	2	PHB263	SCAG115, EEPC7
Levitate at 1st level (Genasai)	F	2	2	PHB255	EEPC9
Pass without trace at 1st (Genasi)	F	2	2	PHB264	EEPC9
At 3rd level Burning Hands (Genasai)	F	4	2	PHB220	EEPC9
Fog Cloud at 1st (Triton)	F	0.75	2	PHB243	VGM118
Gust of Wind at 3rd level (Triton)	F	0	2	PHB248	VGM118
Wall of Water at 5th level (Triton)	F	3.25	2	VGM116	VEG118
If spell is not on the list above use these guidelines or the 'Spells' tab of the excell sheet.					
1st level spell in feat at 1st level	X	2	2	PHB201- 205	PHB31,168,169

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1st level spell in feat at 4th level	X	3.5	2	PHB201-205	PHB165,168,169
Combat related Spell of up to 3rd spell level at same class level as a wizard	X	4	2	PHB201-205	PHB43,DMG287
Combat related Spell of up to 3rd spell level *at will* two class levels after a wizard gets access	I	7	2	PHB201-205	PHB43,113,DMG287. See 'Uses' Damaging Powers
Combat related spell of up to 4th spell level two class levels after a wizard gains access	X	3.5	2	PHB201-205	PHB43,DMG287
Non-combat spell of up to 3rd spell level 2 class levels before a wizard gets it	X	2	2	PHB201-205	PHB31,168,DMG286,EEPC9
Non-combat spell of up to 3rd spell level when a wizard gets it	F	0	2	PHB201-205	DMG287
Non-combat spell of 1st level at 4th level	F	0	2	PHB201-205	EEPC7
Non-combat spell of 2nd level at 4th level	F	0	2	PHB201-205	EEPC7
Non-combat spell of 3rd level at 4th level	F	2	2	PHB201-205	EEPC7
Non-combat spell of 3rd level *at will* at 4th level	F	4	2	PHB201-205	EEPC7
Combat related 1st level spell at 3rd level	X	3.5	2	PHB201-205	PHB24,43
Combat related 2nd level spell at 3rd	X	4	2	PHB201-205	PHB43
Combat related 2nd level spell at 5th level	X	3.5	2	PHB201-205	PHB24,43
Combat related Spell of 4th spell level or above at same class level as a wizard	I	4	3	PHB201-205	PHB & DMG races only have spell levels 3 or lower
Reduce price of combat related spell by 0.5 for every further two levels	I	special	3	PHB201-205	PHB43,DMG287, an extrapolation.
1st level non-combat spell at first level	I	1	2	PHB201-205	PHB31,168,DMG286,287EEPC7,9. Extrapolated from trends
Non-combat spell of 4th spell level or above level 2 class levels before a wizard gets it	I	2	3	PHB201-205	PHB & DMG races only have spell levels 3 or lower
Non-combat spell of 4th spell level or above when a wizard gets it	I	0	3	PHB201-205	PHB & DMG races only have spell levels 3 or lower
Non-combat spell of up to 3rd level *at will* one level after a wizard gets it	I	4	2	EEPC7	EEPC7
Spells with attack roll 2x range	F	2	2	PHB170	PHB31,170
At 4th level Spells with attack roll 2x range	F	0	2	PHB170	PHB165,170
Ranged spells ignore half and 3/4 cover	X	2	2	PHB170	PHB31,170
Adv. On Concentration saves when damaged	X	2	2	PHB170	PHB31,170
at 4th level Adv. On Concentration saves when	F	1	2	PHB170	PHB165,170

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damaged					
can do Somatic components when holding weapons or shields	F	2	2	PHB170	PHB31,170
Switch AoO for spell casting time 1 action or less	X	2	2	PHB170	PHB31,170
At 4th level switch AoO for spell casting time 1 action or less	F	1	2	PHB170	PHB165,170
Feats	Ev.	Pts	Part	Rule	References for Evidence
Feat at 1st level including those listed below	C	6	2	PHB31	PHB31
Feat at 4th level including those listed below	C	4	2	PHB165	PHB165
Charger	C	6	2	PHB165	PHB31
Defensive Duelist	C	6	2	PHB165	PHB31
Elemental Adept	C	6	2	PHB166	PHB31
Lucky (Feat)	C	6	2	PHB167	PHB31
Ritual Caster	C	6	2	PHB169	PHB31
Savage attacker: Reroll melee weapon damage and keep best roll	C	6	2	PHB169	PHB31
Inspiring Leader	C	6	2	PHB167	PHB31
Powers from PC races	Ev.	Pts	Part	Rule	References for Evidence
Amphibious at 1st level	F	2	2	MM199	EEPC10,PHB287
Amphibious at 3rd level	I	0	2	MM199	EEPC10,PHB287
Mimicry as Kenku	F	0	2	VGM111	VGM111, PHB31, 165
Mimicry Speech and sound with one minute listening	F	0	2	MM194	PHB31,165
Saving Face	F	0	2	VGM119	VGM119
Trance as per elf	F	0	2	PHB23	PHB23
Hidden Step	I	1.8	2	VGM107	Non-combat spell evidence and VGM107 'fit'
Mountain Born	F	0	2	EEPC11	EEPC11
Unending Breath	F	4	2	EEPC9	EEPC9
Does not need to eat nor drink	!	0	2	Nil	Guess
Switches	Ev.	Pts	Part	Rule	References for Evidence
Aquatic: switch level for swim and walk speeds	!	0	3	Article	This is a switch
Gills: breathes water at first level.	!	0	3	Article	This is a switch
Monster Features					
DMG277,279,280-281, and VGM	Ev.	Pts	Part	Rule	References for Evidence
Foundation if a trait is an attack or enhances an attack figure the effective DPR etc. as described in the document.					

Race analysis and creation

Foundation: If a trait is not an attack and adds to effective damage per round then determine points and level as per a damaging power doing that amount of average damage					
Foundation: If a trait adds to effective AC then determine points and level as per a natural armour of 10+bonus					
Foundation: If a feature adds to effective HP we need to account for the fact that PC of the race will have differing HP and gain HP with levels. Determine the average HP for the race at 20th level assuming any class levels used d8's for HD. Next figure out the effective hit point increase based on this number. Finally, determine points as per lowest number of HD(s) that rolls that amount.					
Foundation: If a trait adds to effective attack bonus point cost is half the bonus	I	Special			PHB31,170. Based on weapon proff adding +2 at 1st.
Foundation: Area attack consult damaging power tab.	I	Special			PHB24,34,43,168,170,211,220,221,242,250,266,269,271,275,DMG280,284,EEPC10
Ambusher	I	0.5	3	MM82	DMG280
Amorphous at 1st level	I	4	3	MM241	PHB31,168,254,260,DMG286. Uses are similar to Knock and Misty Step but at will
Amorphous at 3rd level	I	0	3	MM241	PHB31,168,254,260,DMG286. Uses are similar to Knock and Misty Step but at will
Angelic Weapons	I	Special	3	MM16	DMG280 Determine points and level as per a natural weapon doing that amount of average damage
Antimagic susceptibility	!	-4	3	MM20	PHB234. Dispell magic is a 3rd level spell so the PC would be incapacitated often. Still evidence is weak so !
Avoidance at first level	I	0.05	3	MM48	DMG280,PHB20,31,165,167,168
Blind Senses at 3rd requires blindsight at 3rd	I	Special	3	MM175	Treat as per Tool Use use disadvantage and assign Inspiration when this limit is important to play.DMG280 probably small,PHB230, better than Darkvision, reduces effectiveness of blindsight
Blood Frenzy	I	2	3	MM263	DMG280
Breath Weapon (damaging).	I	Special	2	MM87	See Damaging Powers,PHB24,34,43,168,170,211,220,221,242,250,266,269,271,275,DMG280,EEPC10
Young Brass Dragon sleep breath at 7th level	I	1.53	3	MM105	PHB31,168,276
Young Bronze Dragon's repulsion breath at 9th level	I	1.5625	3	MM108	PHB31,168,280 like telekinesis spell but less versatile, but covering more targets.
Young copper dragon slowing breath at 9th level	I	1.27	3	MM111	PHB31,168,277, like Slow spell but fewer creatures likely affected say 2nd level spell
Young Silver dragon's paralysis breath at 10th level	I	10.045	3	MM118	PHB31,168,251 like Hold Monster spell
Young Gold Dragon Weakening breath at 13th level	I	3.75	3	MM115	PHB31,168,237 (like the reduce half of Enlarge/Reduce but affects more targets)
Blurred Movement at 1st	I	0.5	3	VGM187	PHB20,31,165,167,168,256. Interpolation. Advantage is worth a mean of +3.125
Brute if Tiny	I	1.5	3	MM33	DMG277,280,Compare to 2d3 natural weapons
Brute Small at 1st level	I	3.5	3	MM33	DMG277,280Compare to 2d6 natural weapons
Brute if medium sized at 9th level	I	6.5	3	MM33	DMG277,280Compare an 2d12 to natural weapons
Brute cannot be taken by PCs of Large or larger size	I	Note	3	MM33	DMG277,280Compare to 4d12 natural weapons
Chameleon skin at 3rd level	I	8	3	MM290	PHB31,PHB24,168,254 (invisibility spell but at will) DMG286,EEPC9
Chameleon skin at 4th level	I	7.5	3	MM290	PHB31,PHB24,168,254 (invisibility spell but at will) DMG286,EEPC9
Chameleon skin at 5th level	I	7	3	MM290	PHB31,PHB24,168,254 (invisibility spell but at will) DMG286,EEPC9
Change Shape at 7th level	I	2.667	3	MM104	PHB31,66 but higher Challenge,266(polymorph but also humanoid form +1 spell

Race analysis and creation

					level),168, range to 0 uses to at will
Change Shape at 9th level	I	0	3	MM104	PHB31,66 but higher Challenge,266(polymorph),168
Charge	I	Special	3	MM38	DMG277,281 Compare total damage to natural weapons for price and level gained. See centaur example race.
Condition immunity (Type)	I	0	2	MM8	DMG279,281
Constrict	I	Special	3	MM320	Price is the price of the damage as a natural weapon +2pt. DMG280,PHB20,31,71(extra attacks),77,165,167,168,170.
Constrict at 4th level or more	I	Special	3	MM320	Price is the price of the damage as a natural weapon +1pt. DMG280,PHB20,31,71(extra attacks),77,165,167,168,170.
Corode Metal	I	2	3	MM243	Denies use like Heat Metal PHB250 but no range, no damage, not immediate, and at will. Looks like a Cantrip. PHB24,37,43,DMG287
Damage Absorption	I	Special	3	MM169	Figure as for damage immunity then add 4. Something like damage immunity and Cure Wounds that scales to level.
Damage Transfer	I	Special	3	PHB166, MM8	Determine average HP at 20th x1/6 then find price for HD that gives that amount.
Damage (type) Vulnerability (one or two)	I	0	3	PHB197	DMG277
Damage (type) Vulnerabilities 3 or more	I	Special	3	PHB197	DMG277 as a x-1/2HD at 20th modifier to HP, the enemy will use this kind of damage if can.
Death Burst	I	Special	3	MM212	Damaging power to determine trait prices and level gained (uses modifier is the same as 1/long rest). PHB24,34,43,168,170,211,220,221,242,250,266,269,271,275,DMG280,EEPC10
Devil Sight at 3rd level (level gained is also a mean of 5th and zero)	I	2	3	MM70	PHB230,20,23,37,39,41,43, Defeats Darkness, like enhanced darkvision
Devil Sight at 5th level	I	1.75	3	MM70	PHB230,20,23,37,39,41,43, Defeats Darkness, like enhanced darkvision
Dive	I	Special	3	MM12	DMG274,PHB31,71(extra attacks),77,170 Point value is same as a Natural attack with dice as per the 1/3x bonus damage.
Echolocation (Hook horror) requires blindsight at 3rd	I	-1	3	MM189	PHB20,23,37,39,41,43,EEPC11
Echolocation (Hook horror) requires blindsight at 5th	I	0	3	MM189	PHB20,23,37,39,41,43,EEPC11
Elemental Body	I	Special	3	MM22	Since it is in addition to weapon damage: DMG277,281 Compare total damage with aura and best weapon to natural weapons for price and level gained. See centaur example race.
Enlarge as per MM Duergar for ANY tool use rank	I	Special	3	MM122	Points and level gained as per natural weapon for damage of Enlarged best possible weapon PHB237,PHB28,37,71(extra attacks),31,165 (feat w/ attacks),167(grappler)
Enlarge as per spell Enlarge/Reduce. Enlarge only self only as innate spell at 1st	I	4	2	PHB237	PHB237,31,168, price drops by 0.5 every 2 levels.
Etheralness at 15th level	I	7	3	MM147	PHB238,31,168,DMG286,EEPC9 As per 7th level spell at will
Etheralness at 17th level	I	6	3	MM147	PHB238,31,168,DMG286,EEPC9 As per 7th level spell at will
False appearance	I	1	3	MM140	PHB260,PHB24,37,43,260,DMG287,280. Less versatile than minor illusion cantrip
Fiendish Blessing	I	1	3	MM36	PHB47
Fiendish charm at will 9th (Cambion)	I	8	3	MM36	PHB31,168,235: Like Dominate person but verbal control, longer duration, and at will.
fly by	I	2	3	MM251	PHB31,168

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fly by at 4th level	I	1	3	MM251	PHB165,168
Frightful Presence or Horrifying visage	I	Special	3	MM87	find average HP at 10th level (not 20th this time) x1/4, find equivalent HD price. PHB20,47,65,113,168,170,230,DMG280
Grappler (more limited than feat of the same name)	F	2	2	MM220	PHB31,167
Hold Breath for 15min	F	0	2	MM204, VGM113	VGM113. Less than amphibious and the spells alter self and waterbreathing. PHB31,168,211,287.DMG286,EEPC9,10
Hold Breath 30min	I	1	2	MM204 but 30min	VGM113, PHB31,168,211,287.DMG286,EEPC9,10
Hold breath 1 hour	I	2	2	MM204 but 1hour	VGM113, PHB31,168,211,287.DMG286,EEPC9,10
Horrifying visage see Frightful presence.	I	Special	3	MM87	find average HP at 10th level (not 20th this time) x1/4, find equivalent HD price. PHB20,47,65,113,168,170,230,DMG280
Illumination	I	2.5	3	MM134	PHB24,37,43,255 (a bit better than a Light cantrip), DMG287
Illusory Appearance at 1st	I	2	3	MM177	PHB31,168,233,DMG286,EEPC9
Illusory Appearance at 3rd	I	0	3	MM177	PHB31,168,233,DMG286,EEPC9
Immutable Form	I	0	3	MM170	As per condition immunity.DMG279,281
Incorporeal Movement at 3rd level	I	5.5	3	MM147	More than halfling nimbleness and a bit like misty step at will PHB28,31,168,233 DMG268,EEPC9
Innate Spellcasting	varies	Special	2	MM144	see spellcasting section PHB238,31,168,DMG286,EEPC9
Insanity	I	0	3	OA224	As Fey Ancestry: PHB23
Inscrutable at 1st	I	2	3	MM281	Essentially a condition immunity and a limited skill advantage. PHB31,165,170,EEPC7,DMG279,281
Inscrutable at 4th	I	1	3	MM281	Essentially a condition immunity and a limited skill advantage. PHB165,170, EEPC7DMG279,281
Invisibility at 3rd	I	8	3	MM76	Same as invisibility spell at will. PHB31,168,254,DMG286,EEPC9. This is a combat related spell
Invisibility at 4th	I	7.5	3	MM76	Same as invisibility spell at will. PHB31,168,254,DMG286,EEPC9
Invisibility at 5th	I	7	3	MM76	Same as invisibility spell at will. PHB31,168,254,DMG286,EEPC9
Labyrinthine recall	!	0	3	MM223	DMG280
Leadership	I	2.5	3	MM186	DMG280,PHB53, weaker than bardic inspiration by 2.5/3.5.
Legendary Resistance per use/long rest always granted at 1st level	!	9	3	MM87	Unsure how to price traits that increase with Challenge hence ! Rating
Life Drain	I	Special	3	MM300	DMG280,285, PHB229,249, Price the attack as a natural weapon then add the price of a 1st level combat spell at the level gained (the max hit point reduction is worth about a spell level) and a 6th level combat spell at the level gained (as Create undead but weaker slave but longer duration)
Light Sensitivity	!	-14	3	MM64	More than Sunlight Sensitivity but how much more is essentially a guess. MM64, PHB24 DMG277,281 Price is determined by comparing the bonus damage to natural weapon prices
Martial Advantage	I	Special	3	MM186	DMG277,281.
Martial Advantage as per Hobgoblin	I	3.5	3	MM186	DMG277,281.
Otherworldly perception at 3rd level	I	8	3	MM199	PHB274 but at will.PHB31,168,254,DMG286,EEPC9

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Otherworldly perception at 9th level	I	5	3	MM199	PHB274 but at will.PHB31,168,254,DMG286,EEPC9
Otherworldly perception at 11th level	I	4	3	MM199	PHB274 but at will.PHB31,168,254,DMG286,EEPC9
Otherworldly perception at 13th level	I	3	3	MM199	PHB274 but at will.PHB31,168,254,DMG286,EEPC9
Parry at first level	I	0.05	3	MM187	AC10+Dex=0, VGM113 indicates estimate from profs PHB20,31,165,167,168 was out by 12x, Turtle adds a third data point enabling a curve to be found.
Possession	I	Special	3	MM147	Calculate from HD. PHB20,47,65,113,168,170,230,DMG280
Pounce	I	Special	3	MM339	DMG277,281 compare damage from pounce x1/3 with natural weapons prices
Prone Deficiency	I	-2	2	MM133	Something like the opposite of overcoming prone with only 5' of movement.
Psychic defence	I	1	3	MM281	PHB47
Rampage	I	0	3	MM163	PHB31,71(extra attacks),77,170, Turtle.
Reactive	!	16	3	MM61	PHB31,168, MM61 assumes a typical party of 4, more useful than the base ability but how much more?
Read Thoughts at 1st level	I	4	3	MM82	PHB231 at will PHB31,168,254,DMG286,EEPC9
Read Thoughts at 3rd level	I	0	3	MM82	PHB231 at will PHB31,168,254,DMG286,EEPC9
Reckless Attack (as barbarian and minotaur)	F	2.25	3	MM223,P HB48	PHB47,48, breakdown of the Barbarian class at level 2
redirect attack	!	1.5	3	MM166	PHB31,170. Kinda like sentinel but harms an Ally (cannot redirect onto a foe)
Reel one opponent only at 1st level	I	6	3	MM261 one foe	PHB31,165 less than multiple opponent reel or at lower level
Reel one opponent only at 4th level	I	4	3	MM261 one foe	PHB165, less than multiple opponent reel or at lower level
Reel 2 or more opponents at 11th level	I	2.25	3	MM261	Average: (reel distance and move as movement 25+10)=35 speed and as per a spell. As telekinesis but more restricted but more targets and at will +1 spell level.
Regeneration	!	Special	3	MM291	Compare 15x hp/round regenerated with HD prices. PHB20,47,65,113,168,170,230,DMG281 and a typical 'adventuring day' of 30 rounds of combat where we guess that the regeneration is only useful in about half of the rounds. This price is pretty close to a guess.
Rejuvenation at 15th level	I	2	3	MM202	PHB222 similar to Clone spell. PHB31,168,254,DMG286,EEPC9
Rejuvenation at 17th level	I	0	3	MM202	PHB222 similar to Clone spell. PHB31,168,254,DMG286,EEPC9
Rock Catching DC10 DEX save	!	0	3	MM156	A guess. How often is this going to come up?
Shadow Stealth	I	0.8	3	MM64	DMG281,274
Shapechanger at 1st	I	2	3	MM208	PHB211 (like alterself but more restricted in use but at will)PHB31,168,254,DMG286,EEPC9
Shapechanger at 3rd	I	0	3	MM208	PHB211 (like alterself but more restricted in use but at will)PHB31,168,254,DMG286,EEPC9
Siege Monster	!	0	3	MM124	Does not affect foes directly.
Slippery	!	2	3	MM199	DMG281,PHB31,168. Something like Inverse of advantage on attack
Spellcasting, consider noting the race has many members of a spellcasting class instead	varies	Special	3	MM202 details vary	As innate spellcasting above. PHB31,168,DMG286,EEPC9
Spiderclimb	I	4	3	MM131	PHB277 but at will. PHB31,168,254,DMG286,EEPC9

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Standing Leap (as per frog, set distances).	I	0.5	3	PHB305	PHB31,165,182,254,
Stanging leap as per bullywug and giant frog	I	1	3	MM35	PHB31,165,182,254,
Steadfast	!	2	3	MM70	It looks like a cantripPH250, but at will self only no HP. PHB24,37,43,DMG287
Stench at 1st level	I	0.05	3	MM290	PHB31,168,254,DMG286,EEPC9
Stench Spray at 7th	I	0.88	2	MM135	PHB43,DMG287, an extrapolation. PHB31,168. Like stinking cloud but fewer targets and longer duration. As per 3rd level spell at will
Sunlight Sickness	I	Special	3	MM230	PHB24, SC104. Assumes the character can easily find cover or be covered before death occurs. Us whatever price you use for Sunlight Sensitivity
Superior Invisibility at 4th level	I	7.5	3	MM133	PHB31,168,254,DMG286,EEPC9
Superior Invisibility at 16th	I	2.5	3	MM133	PHB31,168,254,DMG286,EEPC9
Superior Invisibility except 1/ short rest at 12th	I	3.6	3	MM133	PHB31,168,254,DMG286,EEPC9
Sure footed	X	2	3	MM143	PHB31,165,170, EEPC7
Sure footed at 4th level	X	1	3	MM143	PHB165,170, EEPC7
Swallow	I	Special	3	MM25	DMG277,281 Compare 2/3x the damage from the trait to natural weapons for prices
Swamp Camouflage	F	1.5	2	MM35	PHB24
Teleport at 3rd level	I	4	3	MM55	PHB260 longer distance, at will, self only. PHB31,168,254,DMG286,EEPC9
Terrain camouflage	X	2	2	PHB7,137	PHB31,165,170, EEPC7
Tunneler	!	0	3	MM292	Must have a burrowing speed
Turn Immunity	I	0	3	MM259	Essentially a condition immunity
Turn Resistance	I	0.5	3	MM202	Essentially a advantage on a save against a specific thing. PHB20,28
Two Heads	I	9	3	MM132	PHB20,28,31,165,170, EEPC7
Undead Fortitude	I	6.5	3	MM316	PHB20,47,65,113,168,170,230
Underwater Cameoflage	I	7	2	MM326	EEPC7
Web at 1st level	I	0.05	3	MM338	DMG277,279,280-281
Web Sense at 3rd	!	0.625	3	MM338	DMG281 PHB230, better than Darkvisionless than blindsight
Wound Fury	I	Special	3	MM256	DMG277,281 Compare 1/3x the additional damage from the trait to natural weapons for prices, PHB31,71(extra attacks),77,170 then add +2pt for the advantage to attack roll in specific circumstance.

DAMAGING POWERS

Do not use this for cantrips, though cantrips were used in this sheet's creation all cantrips are always 2pt. This sheet was constructed using powers available as race powers only and should not be used to price class powers.

First find DPR		
If DPR is between given values use the next		

highest.			
DPR	Level req.	Rounded	Evidence
0.2	1	0.02	I
0.4	5	0.02	I
0.5	1	0.07	I
0.5	5	0.04	I
0.6	11	0.03	I
0.8	17	0.03	I

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1	1	0.14	I
1	5	0.07	I
1	11	0.05	I
1	17	0.04	I
1.5	1	0.21	I
1.5	5	0.11	I
1.5	11	0.07	I
1.5	17	0.05	I
2	1	0.29	I
2	5	0.14	I
2	11	0.1	I
2	17	0.07	I
2.5	1	0.36	I
2.5	5	0.18	I
2.5	11	0.12	I
2.5	17	0.09	I
3	1	0.43	I
3	5	0.21	I
3	11	0.14	I
3	17	0.11	I
3.5	1	0.5	F
3.5	3	0.26	F
3.5	5	0.25	I
3.5	6	0.21	F
3.5	11	0.17	I
3.5	17	0.12	I
4	1	0.57	I
4	5	0.29	I
4	11	0.19	I
4	17	0.14	I
4.5	1	0.64	I
4.5	5	0.32	I
4.5	11	0.21	I

4.5	17	0.16	I
5	1	0.71	I
5	5	0.36	I
5	11	0.24	I
5	17	0.18	I
5.5	1	0.79	I
5.5	5	0.39	I
5.5	17	0.2	I
6	1	0.86	I
6	5	0.43	I
6	16	0.23	F
6	17	0.21	I
6.5	1	0.93	F
6.5	5	0.46	I
6.5	11	0.93	I
6.5	17	0.23	I
7	1	1	I
7	5	0.5	I
7	11	0.33	I
7	17	0.25	I
7.5	1	1.07	I
7.5	5	0.54	I
7.5	11	0.36	I
7.5	17	0.27	I
8	1	1.14	I
8	5	0.57	F
8	11	0.38	I
8	17	0.29	I
8.5	1	1.21	I
8.5	5	0.61	I
8.5	11	0.4	I
8.5	17	0.3	I
9	1	1.28	I
9	5	0.64	I

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9	11	0.42	
9	17	0.32	
9.5	1	1.36	
9.5	5	0.68	
9.5	11	0.45	
9.5	17	0.34	
10	1	1.42	
10	5	0.71	
10	11	0.48	
10	17	0.36	
10.5	1	1.5	
10.5	5	0.75	
10.5	11	0.5	
10.5	17	0.375	
11	5	0.79	
11	11	0.52	
11	17	0.39	
11.5	5	0.82	
11.5	11	0.55	
11.5	17	0.41	
12	5	0.86	
12	11	0.57	
12	17	0.43	
12.5	5	0.89	
12.5	11	0.6	
12.5	17	0.45	
13	5	0.93	
13	11	0.62	
13	17	0.46	
13.5	5	0.96	
13.5	11	0.64	
13.5	17	0.48	
14	5	1	
14	11	0.67	
14	17	0.5	

14.5	5	1.04	
14.5	11	0.69	
14.5	17	0.52	
15	5	1.07	
15	11	0.71	
15	17	0.54	
15.5	5	1.11	
15.5	11	0.74	
15.5	17	0.55	
16	5	1.14	
16	11	0.76	
16	17	0.57	
16.5	5	1.18	
16.5	11	0.79	
16.5	17	0.59	
17	5	1.21	
17	11	0.81	
17	17	0.61	
17.5	5	1.25	
17.5	11	0.83	
17.5	17	0.62	
18	5	1.29	
18	11	0.86	
18	17	0.64	
18.5	5	1.32	
18.5	11	0.88	
18.5	17	0.66	
19	5	1.36	
19	11	0.9	
19	17	0.68	
19.5	5	1.39	
19.5	11	0.93	
19.5	17	0.7	
20	5	1.43	
20	11	0.95	

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20	17	0.71	I
20.5	5	1.46	I
20.5	11	0.98	I
20.5	17	0.73	I
21	5	1.5	I
21	11	1	I
21	17	0.75	I
21.5	11	1.54	I
22	17	0.79	I
22.5	17	0.8	I
23	17	0.82	I
23.5	17	0.84	I
24	17	0.86	I
24.5	17	0.88	I
25	17	0.89	I
25.5	17	0.91	I
26	17	0.93	I
26.5	17	0.95	I
27	17	0.96	I
27.5	17	0.98	I
28	17	1	I
28.5	17	1.02	I
29	17	1.03	I
29.5	17	1.05	I
30	17	1.07	I
30.5	17	1.09	I
31	17	1.11	I
31.5	17	1.12	I
32	17	1.14	I
32.5	17	1.16	I
33	17	1.17	I
33.5	17	1.2	I
34	17	1.21	I
34.5	17	1.23	I
35	17	1.25	I

35.5	17	1.27	I
36	17	1.29	I
36.5	17	1.3	I
37	17	1.32	I
37.5	17	1.34	I
38	17	1.36	I
38.5	17	1.37	I
39	17	1.39	I
39.5	17	1.41	I
40	17	1.42	I
40.5	17	1.45	I
41	17	1.46	I
41.5	17	1.48	I
42	17	1.5	I

Then multiply for area
Area
if no area =x1 (evidence X)
Multiplier is calculated as per the typical number of targets DMG249
Except do NOT round
Multiply this number of targets by x10.
Evidence is X if 15, F if 10, otherwise I
If 'all with 5ft of yourself' treat as x2 (EEPC thunderclap)
Evidence F

Then multiply for range

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Range	multiplier	Evidence
5 or less	1	F
10	1.083333333	F
15	1.125	X
20	1.166666667	I
25	1.208333333	I
30	1.25	X
35	1.291666667	I
40	1.333333333	I
55	1.458333333	I
50	1.416666667	I
60	1.5	X
65	1.541666667	I
70	1.583333333	I
75	1.625	I
80	1.666666667	I
85	1.708333333	I
90	1.75	I
95	1.791666667	I
100	1.833333333	I
105	1.875	I
110	1.916666667	I
115	1.958333333	I
120	2	X

Then multiply for uses		
Note: DPR accounts for use over one fight, this accounts for number of fights power is available in an adventure		
Uses	multiplier	Evidence
once per day or long rest or 6 on d6, or worse	1	X

At will	2	X
short rest	1.6	F
2/day or recharge d6 5-6	1.25	I
3/day or recharge 4-6	1.5	I
4 or more/day, 3-6 or 2-6 on a d6	1.75	I
If power or spell normally lasts one minute anything other than 1/long rest also multiply by	1.5	F from Aasimar VMG105
Remember per day powers are changed to uses recharged by a long rest for PCs		

If race LA is 4 or greater

If power has an area effect or multiple targets

Divide cost by 10.

Finally round down

to nearest multiple of 0.25

APPENDIX C: LEGAL NOTICES

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Race analysis and creation

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The Drakon, Thurse, and Ferrish as described here are inspired by folklore, however the versions presented here are copyright Karl David Brown.

This is an analysis of 5th edition D&D's underlying mathematics and a system for referees to create new races and feats for their campaign settings. There are 37 new races in short form including minotaurs, centaurs, and pixies.

This book benefits from three years of playtesting and development. Hundreds of hours of mathematical analysis of evidence from the Players' Handbook, Dungeon Masters' Guide, Elemental Evil Player's Companion, Volo's Guide to Monsters, and the Turtle Package has determined how canon races are built enabling you to build quality new races for your players.

There is also an *optional* section that contains rules that are NOT part of the reversed engineered system. Rules from the PHB and DMG are applied in new ways to open up a greater diversity of PC races.

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