

Basic D&D Inverting the “to hit” charts

An odd mechanic in basic D&D that has been streamlined by recent editions is the armor class and “to hit” charts. In the older systems, several charts had to be consulted in order to determine what number was required on a d20 roll for an attacker to hit his opponent. Even the character sheet included a single row of this chart so that players could copy out the “to hit” rolls of their character. Of course, toss in a few magic items, weapon switching, etc, and the whole thing went to hell. Not to mention that the DM had to constantly reference said charts when making monster attacks.

So here's how to stream-line the whole thing by simply inverting the math. It begins by changing the way Armor Class is calculated. Rather than beginning at 9 for an unarmored man and decreasing the value as armor is added, instead we start at 11 and increase the value as armor is added. The new Armor chart for players looks like this (replacing the chart on Moldvay X9):

Item	AC
Barding (for horse)	15
Chain Mail Armor	15
Leather Armor	13
Plate Mail Armor	17
Shield	(+1)*

* Add 1 to Armor Class number if shield is used

In fact, there's a simple formula for converting old AC value to new AC value:

$$\text{New AC} = 10 + (10 - \text{Old AC})$$

Using the above conversion, for a normal man to hit his target, he simply rolls equal to or higher than the target's AC on a d20. No chart look-up is required at all. For player characters, instead of changing all the values in a “to hit” chart, we simply add a bonus to the roll. The following chart replaces the old Character Attacks chart (Moldvay X26):

Character Class and Level			Bonus “to hit”
Fighters, Dwarves, Elves, and Halflings	Clerics and Thieves	Magic-Users	
normal man			0
1-3	1-4	1-5	+1
4-6	5-8	6-10	+3
7-9	9-12	11-15	+6
10-12	13-16	16-20	+8
13-15	17-20	21-25	+9

Monsters are even easier to calculate, they simply gain a +1 to hit per hit die. Meaning a monster with 5 hit dice gains a +5 to hit. Monsters with a bonus to their hit dice get an extra +1, so a monster with 3+2 hit dice attacks with a +4 bonus to hit.