

Pathmaster

Economics

- 1 mithril "Emperor" (mp) = 10 pp
- 1 platinum "piece" (pp) = 10 gp
- 1 gold "crown" (gp) = 10 sp
- 1 silver "shilling" (sp) = 10 cp
- 1 copper "penny" (cp) – lowest denomination

All coins are minted with a universal $\frac{1}{4}$ ounce weight, making 64 coins weigh 1.0 pound. The gold crown is the most commonly encountered coin, with platinum being the most valuable of the common units. Mithril coins are only minted in extreme cases.

Commerce and Trade

The base value for purchasing and selling equipment is 100% purchase price, and 50% sale price. This is modified however by the success (or failure) of the character's trading skill (their ability to locate items and haggle for the best prices), and assumes a competent trade skill.

Base prices are modified by the character's (or group's) effective Trading skill. Using their total skill bonus, find the square root. This is the + or – percentage increase received for all bulk activities. I.e., a +30 skill results in a 5.5% modifier. This puts the purchase price at 94.5% and sale price at 55.5%. This would apply for any general sales or purchases, but not for specific or high priced unique trades.

For any direct sale or purchase efforts, resolve the Trading skill maneuver normally for a specific result.

Each item should have a modifier based on how rare it is, which applies a penalty or bonus to the trading roll. Rare items have a penalty to buy, but a bonus to sell. Common items have the reverse.

Pathmaster

Once the final roll is determined, apply the following results:

Trading Skill Maneuver	Purchasing Items	Selling Items
< 0	Swindled. Purchase items at 100% value, but the items are <i>inferior</i> .	Swindled. You manage to sell the item for 90% value, but the funds or trade goods are counterfeit and worthless
1-50	Failure, no one is willing to sell the item	Failure, no one is willing to purchase the item
51-75	Partial success, items are available but at 120% of list price	Partial success, a buyer is available, but only willing to pay 50% of the value of the item
76-100	Near success, items are available at 110% of list price	Near success, a buyer is willing to pay 75% of the value of the item
101-150	Success, items are available at 100% of list price	Success, items can be sold at 90% value
151+	Absolute Success, 90% list value	Absolute Success, 100% list value

Rarity	Purchase Modifier	Sell Modifier	Notes
Very Common	+30	-30	Trade goods, grain, sheep, etc
Common	+20	-20	Basic tools and equipment
Uncommon	+0	+0	Specific weapons and armor
Rare	-30	+30	Gems, jewelry
Inferior Quality	+20	-20	
Normal Quality	+0	+0	
Superior Quality	-20	+20	
Masterwork Quality	-30	+30	
Legendary Quality	-50	+50	
Unique Quality	-70	+70	
Magical	-20	+20	
Herb Rarity	Varies	Varies	Modifier based on rarity

General Gear

Reference subfile *"Equipment – Misc Gear"* for general gear and supplies

Weapons

Reference subfile *"Equipment – Weapons"* for weapons and attacks

Armor and Barding

Reference subfile *"Equipment – Armor"* for armor, armor addons, and barding

Provisions and Services

Reference subfile *"Equipment – Provisions"* for provisions, lodging and services

Transportation

Reference subfile *"Equipment – Transport"* for mounts and transportation

Herbs, Poisons, and Special Compounds

Reference subfile *"Equipment – Herbs"* for herbs, intoxicants, and poisons

Equipment Modification

All gear has the option to be modified, to be either above or below the standard quality and workmanship. The price lists and details in the price charts above represent average, off-the-shelf gear commonly found in the world and freely available.

Weapons

Inferior Quality

Inferior quality equipment is available for a discount, for those willing to deal with shoddy or old equipment. Weapons which are inferior are subject to Breakage, and increase their fumble by +1.

Masterwork Quality

Masterwork quality equipment is readily available in most locations. For weapons, this makes the weapon not subject to Breakage rules, except as defined by Criticals. The weapon otherwise does not gain any bonuses.

Quality	Base Cost	Effects
Inferior	50%	Breakage, +1 Fumble
Standard	100%	None
Masterwork	300 gp	No Breakage
Superior I	+1,000 + 300 gp	+5 item bonus
Superior II	+4,000 + 300 gp	+10 item bonus
Superior III	+9,000 + 300 gp	+15 item bonus
Superior IV	+16,000 + 300 gp	+20 item bonus
Superior V	+25,000 + 300 gp	+25 item bonus
Magical	x2	Reduced fumble

Superior (X) Quality

Superior I quality equipment is available in most locations, for those willing to spend the money. Larger markets will be able to supply higher levels of Superior level equipment. Superior quality weapons are not subject to breakage, except as defined by criticals. Superior quality weapons gain a +5 item bonus multiplied by the Rank of the Superior quality.

All Superior weapons must also be Masterwork.

Magical Quality

Magical quality gear is actually an add-on to the pre-existing craftsmanship of the item itself. Any Superior quality item can be made “magical”, though the base craftsmanship cannot be changed. A magical weapon reduces the fumble range by -2 (minimum of 1), and gains some inherent powers (ability to damage creatures only injured by magic, etc). In general, the powers and abilities of “magical” weapons are frequently unknown or unpredictable, and always defined by the GM. All magical weapons must fail two separate breakage checks to actually be broken, and then only when specifically called for by a critical result.

Missile Weapons and Ammo

When purchasing or detailing missile weapons that consist of a machine and ammunition (bows and arrows, crossbows and bolts, etc), only the Ammo is enhanced as per the weapon mechanics. Arrows or Bolts that are higher quality provide a skill bonus on the attack, not the machine itself. Buying a higher quality crossbow or bow however does affect the range of the weapon, increasing the range brackets each by the Quality bonus expressed as a percent (+5%, +10%, etc), with a minimum increase of 5 feet

Pathmaster

per bracket. If the machine is also Magical, then the Quality bonus also applies to any Quickdraw skill checks to reload or ready.

Ammo purchased with enhanced Quality are purchased in lots of 50 units, or can be purchased in proportionally smaller lots if desired.

Pathmaster

Armor

Inferior Quality

Inferior quality equipment is available for a discount, for those willing to deal with shoddy or old equipment. Armor which is inferior has a -20 additional Maximum maneuver penalty, and -10 additional Minimum Maneuver penalty. The QU penalty is increased by 10 as well (with a maximum of -10 DB)

Quality	Cost	Effects
Inferior	50%	Breakage, +1 Fumble
Standard	100%	None
Masterwork	+150 gp	
Superior I	+500 + 150 gp	+5 item bonus
Superior II	+2,000 + 150 gp	+10 item bonus
Superior III	+4,500 + 150 gp	+15 item bonus
Superior IV	+8,000 + 150 gp	+20 item bonus
Superior V	+12,500 + 150 gp	
Magical	x2	Magical DB

Masterwork Quality

Masterwork quality armors are available readily in most locations. This armor reduces the Maneuver Penalties by 5.

Superior (X) Quality

Superior quality equipment is available in most locations, for those willing to spend the money. Superior quality armor reduces the inherent Quickness penalty by +5 (including into a +QU penalty, ie more protective) and the Maneuver Penalties by +5 (to a maximum of +0). Higher levels of Superior multiply these effects times the Quality level (Superior 5 gives +25 QU penalty and +25 Maneuver Penalty)

Magical Quality

Magical quality gear is actually an add-on to the pre-existing craftsmanship of the item itself. Any Superior quality item can be made “magical”, though the base craftsmanship cannot be changed. Magical armor removes the limit of +0 on Maneuver Penalties (meaning the net benefit can go positive) and converts 100% of the Quickness penalty modifier into a Magical DB bonus. This means that the Armor QU penalty goes back to normal, but the enhanced Armor bonus applies (evening out to the same DB). However, since the Armor is magical, the Magical DB bonus cannot be reduced or eliminated, except in extreme circumstances. Even in cases where a Dodge DB would be disallowed, the Magical DB still applies. A magical DB may also give an extra defense in GM-defined situations (for example, against incorporeal attacks)

Shields

Higher quality shields have slightly altered mechanics. The Superior quality bonus of a Shield is added directly to the DB bonus of the Shield, versus both Melee and Ranged. A magical shield gains the benefit of being able to be used versus a single additional attacker in a given round. The shield bonus from a magical shield is NOT considered a Magical DB, and is lost/reduced in all of the same ways of losing a regular shield bonus.

A “Masterwork” shield’s only real benefit is as a weapon (reference Weapon modifications) used in Shield Bash, or for cosmetic benefits.

Magical Items

In addition to mundane gear and high quality gear, many adventurers like the option for magical gear, both in consumables as well as re-usable items.

Potions

Potions are small vials filled with fluid, charged with a single stored spell effect.

Potions can be crafted by either the use of specific spells, or by alchemical means (and ample Cookery skill). All potions are single use consumable items.

Many spells of 10th level or less can be crafted into a Potion, though Essence is the easiest to bottle, and Mentalism is the hardest. Only spells which are defined as Utility and/or have a range of Self or Touch can be crafted into Potions. All other spells are subject to GM interpretation and review.

Potion Purchase Prices (gp)				
Level	Essence	Channeling	Mentalism	Difficulty
1	25	30	35	+30
2	50	60	70	+20
3	175	210	245	+10
4	300	360	420	+0
5	525	630	735	-10
6	750	900	1050	-20
7	1075	1290	1505	-30
8	1400	1680	1960	-50
9	1825	2190	2555	-70
10	2250	2700	3150	-100

Potion Crafting (Brewing)

If the character has the means and availability to do so, they can brew their own potions. This requires an amount of raw materials equal to 50% of the Potion Purchase Price, for the respective Realm and Level. In addition, the brewer must have ready access to the spell to be stored, either thru their own casting ability, or thru that of a companion. Normal spell points and casting rolls are made at the time of brewing (specifically at the end), as the spell is cast into the brew to store the magic.

All potion brewing requires 2 hours of time and effort. During this time, any desired number of doses of a single brew can be made, but it is not possible for a single cook to simultaneously brew different potions, either in different pots or otherwise. The number of potions of the single spell is limited only by the availability of spell casting ability (each spell must be cast immediately one after the other at the end of the brewing cycle) and the availability of raw materials. For each spell cast that is failed, that particular brew dose is spoiled (though the rest may be fine). If a spell failure or other distraction results in a delay of 3 rounds or longer before the next casting completes, all further brew doses are spoiled and ruined. All ruined doses in this case are worthless and the raw materials lost.

Once the spell casting cycle is complete, the brewer makes a single Cookery static maneuver skill roll. This roll determines not only the overall success, but the shelf-life of the potions. All doses of the potion are identical, both in success and shelf-life, there is only a single brewing Cookery roll made.

This Cookery roll is modified by difficulty of the brew, which in turn is based on the level of the imbedded spell. Exceptionally rare ingredients used to enhance the cooking may provide a Cookery skill bonus, based on GM discretion.

Pathmaster

- Static Maneuver roll of 101+ = results in a stable brew. All doses are good, with a shelf-life of at least 10 years.
- Static Maneuver roll of 81-100 = near success. All doses are usable and safe, but have a base 5% chance of not functioning when used. This chance increases by 5% per month of shelf life.
- Static Maneuver roll of 66-81 = partial success. 50% of the doses are salvageable (round down), with a base 5% chance of not functioning when used. This chance increases by 5% per week of shelf life.
- Static Maneuver roll of unmodified 66 = Unusual Event. 100% of the doses are usable, but are very unstable. Your brewing has crafted either a very potent version of the spell (increase effects and/or duration by 20%) or a deadly poison (Poison level equal to spell level), 50% chance either way. For each day of shelf life, the brew has a cumulative 5% chance of becoming inert and worthless.
- Static Maneuver roll of 00-65 = failure. All materials and time are wasted as the brew is completely unusable

Once a Potion is crafted (or purchased), it can be freely used by any person with no skill roll required. The imbedded spell takes effect immediately, or as defined by the spell.

Runes

Runes are fragile parchment or paper writings, charged with a single stored spell effect. Runes can be crafted by either the use of specific spells, or by alchemical means (and ample Linguistics skill). All Runes are single use consumable items.

Spells of any level or Realm can be implanted onto Runes. The only spells which are not viable for Runes are those classified as Instantaneous (the act of activating the Rune cannot be instantaneous).

All Runes are written onto specially prepared scrolls of Rune Paper, a commonly available material. This Rune paper, although by nature very fragile in its physical qualities, is actually very durable with the magic of Runes. Once inscribed, the magic of the spell protects the paper and scroll from harm, keeping the magical rituals intact. Only powerful forces (as GM determined) will damage a scroll, meaning they can last for millennia locked away in forgotten crypts and vaults. Uninscribed Rune Paper however has the strength and consistency of rice paper, and is normally packed away carefully to avoid water damage or accidental tearing.

Although in some markets it is possible to purchase pre-written Runes, that is far from ideal. Runes are a very personal art, and reading someone else's writings carrying significant penalties.

Runes Purchase Prices (gp)			
Level	Purchase	Scribe	Difficulty
1	13	6	-5
2	25	13	-10
3	88	44	-15
4	150	75	-20
5	263	131	-25
6	375	188	-30
7	538	269	-35
8	700	350	-40
9	913	456	-45
10	1125	563	-50

Pathmaster

Rune Crafting (Scribing)

Any fully trained and competent spell caster will want to have the ability to scribe their own scrolls, both as a means of recording and studying their realm, as well as a way to extend their power. This requires an amount of raw materials equal to 50% of the Rune Purchase Price, for the respective Level. In addition, the scribe must have ready access to the spell to be stored, specifically thru their own casting ability. Using a companion's spell casting ability is not permitted when scribing a spell. Normal spell points and casting rolls are made at the time of scribing (specifically at the end), as the spell is cast into the rune paper to lock the magic.

Scribing a new Rune requires 1 hour of concentration per level of the spell being inscribed. This time does not need to be continuous or uninterrupted, but any damage to the fragile rune paper at this stage ruins the work. Only one Rune can be worked on at a given time, though of course it is possible to have several in progress simultaneously. At the end of the writing time, the caster makes a single spell cast roll to enchant the Rune, protecting the vessel of the magic from harm. If the spell cast is unsuccessful, the spell can be re-attempted as many times as desired, unless the Rune paper is damaged in some way (for example, a spell explosion).

Once the spell casting cycle is complete, the scribe makes a single Linguistics static maneuver skill roll. This roll determines not only the overall success, but the readability of the writings. The choice of language that a scroll is written in is entirely up to the decision of the scribe, there are no predefined languages. However, since spell casters tend to not like others stealing their research, they tend to specialize in ancient or otherwise uncommon languages, to protect their work.

This Linguistics roll is modified by difficulty of the Spell, which in turn is based on the level of the imbedded spell. There is a flat -5 penalty for each level of the spell being stored. Exceptionally rare ingredients used to enhance the scribing and preparation may provide a Linguistics skill bonus, based on GM discretion.

- Static Maneuver roll of 101+ = results in a usable Rune. All requirements are satisfied, and the scroll will survive for ages if left unused.
- Static Maneuver roll of 81-100 = near success. The Rune is usable and protected normally. However, there is a subtle flaw in the writing that will become apparent during the use of the Rune. This gives a -10 penalty on the Read Runes skill check.
- Static Maneuver roll of 66-81 = partial success. The Rune is usable, but poorly warded against damage. The scroll has a 5% cumulative chance per month of becoming damaged and worthless. In addition, the writing quality has numerous flaws in either logic or symbology, making it difficult to decipher when used. This gives a -20 Read Runes modifier.
- Static Maneuver roll of unmodified 66 = Unusual Event. The scroll is usable, and well protected. However, your language choice and phrasing has twisted the meaning of the spell, resulting in a different spell effect. Roll 1d10, on a 1-5, reduce the spell level by that amount on the same spell list. On a 6-10, subtract 5, then increase the spell level by that amount on the same list. Your focus on the preparation of the spell makes it difficult to recognize your errors, you have a

Pathmaster

50% chance to spot the problem at the end of scribing (otherwise it isn't spotted until you use the scroll).

- Static Maneuver roll of 00-65 = failure. All materials and time are wasted as the scroll is completely unusable and the materials are ruined.

Once Runes are successfully written, they must first be deciphered by the prospective user before they can be used. The act of deciphering a Rune takes 1 hour per attempt, with a limit of one attempt per Rune per day. Using the appropriate Linguistics skill static maneuver, a result of 101+ has deciphered the scroll. All other results are inconclusive, but another attempt can be made after 24 hours of reflection and study. Runes being used by the original author are automatically deciphered, and do not need to follow this step.

Once you have a usable scroll that you have deciphered, you have to actually read it in order to release the stored magic, using a Read Runes static maneuver roll. Reading a Rune is a Full Round actions (standard + movement), requiring two hands free (to hold the scroll and gesture), that allows only a single step before or after casting. Regardless of the level of spell imbedded in the Rune, it is always a single round spell. Extra rounds of preparation (or lack of preparation) has no bearing on the casting of the spell. The user of a Rune does not need to know the spell or spell list, and does not expend any spell points in the casting of the Rune. In all other aspects, the Read Runes skill roll takes the place of the normal Spell Casting static maneuver roll.

Read Runes Modifiers	
Modifier	Effect
-20	Different Realm
-20	Other Base List
+0	Closed List
+10	Open List
-30	Different Author
+ranks	Skill ranks in Spell list
+ranks	Skill ranks in Linguistics
-30	One-handed
-10	Whisper voice
+0	Normal voice
+5	Shouting voice

- Static Maneuver roll of 101+ = successful cast, resolve spell normally. The Rune is expended.
- Static Maneuver roll of 81-100 = near success. The spell fails to cast, but the rune is still only partially triggered. The reader can try again during the next round and the next round only. If on the second round it results in a 101+, the spell acts normally. Otherwise the spell is lost and the Rune is ruined.
- Static Maneuver roll of 00-81 = failure. The Rune fails to activate or the instructions are misinterpreted. Too much of the magic of the Rune is used however to attempt another reading. The spell is lost without effect, and the Rune is ruined.

Non-Standard Magic Items

In the Pathfinder system, many magic items are possible, with a significantly varied cost structure. In the Rolemaster system, these typically fall into one of several categories (Daily, Constant, Adder, Charged, and Enhancer).

As a general rule of thumb, when converting items or gear, consider a Rolemaster spell level to equal 1/3 of a Pathfinder spell level, ie, a Pathfinder Level 1 spell is equivalent to a level 1-3 Rolemaster spell. A level 9 Pathfinder spell would be equivalent to a level 24-27 Rolemaster spell. Its not a perfect conversion, and some GM interpretation may be necessary, but that is the basis for the calculations

Pathmaster

below. This Pathfinder Spell Level Equivalent (PSLE) has been factored into the pricing below, and no further modifications are needed.

Spell Caster Level has a similar conversion. However, in Rolemaster, the caster level is (typically) the same as the spell level, in Pathfinder the caster level is (typically) (spell level $\times 2 - 1$). For Pathmaster, the Pathfinder Caster Level Equivalent (PCLE) would be $((PSLE) \times 2 - 1)$. This formula is included in the calculations below.

Daily Spell Items

Daily spell items are magic items that have a fixed spell-like ability, that can be used one or more times per day.

All Daily spell items require a Use Magic Devices skill check in order to attune to the item. Once that is completed, the item functions as desired without further rolls. Action time for each ability is based on the spell itself, and functions in all ways identical to casting the spell naturally, except that no preparation is required, and there is never a spell casting success roll. It is possible to Fail a spell if the Base Attack or Directed Spell Attack charts indicate. The use of a Daily spell item in a round counts as casting a spell for other limitations. The use of a Daily Spell Item does not expend Power Points.

The base cost of a Daily spell item is the $PSLE \times PCLE \times 360$ gp. This provides for a single item, with a single spell ability, usable once per day. For additional charges per day, multiply the base price. If the item has multiple powers, calculate the most expensive single-charge ability, and increase all additional abilities by +50% cost, before multiplying each independently by the respective number of daily charges.

Constant Spell Items

Constant spell items are magic items that have a fixed spell-like ability or other enhancement, but for which the bonus or effect is always on. In general, the effect cannot be suppressed unless the item is removed.

All Constant spell items require a Use Magic Devices skill check in order to attune to the item. Once that is completed, the item functions without further rolls. The use of a Constant Spell Item does not expend Power Points.

Only non-instant spells can be made into Constant Spell Items. The GM will interpret if there is any question about the viability.

The base cost of a Constant spell item is the $PSLE \times PCLE \times 2000$ gp. This provides for a single item, with a single spell ability that is always on. For additional spell abilities, calculate the most expensive ability, and then increase all additional abilities by +50% cost, before adding them together for the total value.

Adder Spell Item

Adder spell items are magic items that have a variable spell “battery”, and are able to power spell-casting thru their internal power. They do not intrinsically contain any ability to cast spells themselves – that is under the influence of the wielder – adders only add the mana necessary to cast the spell.

Pathmaster

All Adder spell items require a Use Magic Devices skill check in order to attune to the item. Once that is completed, the item functions as desired without further rolls. When the Adder is used to aid in the casting of a spell, it provides a single charge for the spell, which replaces any required power points. In these cases, if it is relevant, only the minimum number of power points is supplied. Other than the source of the Power Points, the spell casting action and effects all occur as normal for spell casting.

Adder spell items are rated by the maximum level of spell they can power, and the number of daily charges. Any spell up to or lower than the maximum level can be powered, but each such use uses one of the daily charges.

The base cost of a Daily spell item is the $PSLE \times PCLE \times 1080$ gp. This provides for a single item with a single daily charge. For additional charges per day, multiply the base price by the number of charges.

Charged Spell Item

Charged spell items are magic items that have a fixed spell-like ability, that have a finite number of charges before they are used up and worthless.

Charged spell items do not require a Use Magic Devices skill check in order to attune to the item, anyone who knows the command word can use the item as they wish. Action time for each ability is based on the spell itself, and functions in all ways identical to casting the spell naturally, except that no preparation is required, and there is never a spell casting success roll. It is possible to Fail a spell if the Base Attack or Directed Spell Attack charts indicate. The use of a Charged spell item in a round counts as casting a spell for other limitations. The use of a Charged Spell Item does not expend Power Points.

The base cost of a Charged spell item is the $PSLE \times PCLE \times 1000$ gp. This provides for a single item, with a single spell ability, with 50 existing charges. Charged spell items can only contain a single spell ability.

Enhancer Spell Items

Enhancer spell items are magic items that enhance the natural mana reserve of the wielder. They do not intrinsically contain any ability to cast spells themselves – that is under the influence of the wielder – adders only make the natural mana of the wielder more efficient.

All Enhancer spell items require a Use Magic Devices skill check in order to attune to the item. Once that is completed, the item functions as desired without further rolls. Once the Enhancer is attuned, as long as it is worn or wielded, it increases the base Mana pool of the caster by a fixed percentage. If the item is lost, stored, or otherwise not “worn”, the effect goes away, and the mana pool returns to normal levels. Note that this is a percentage change in both cases, not an additive/subtractive operation, so a “tired” spell caster doesn’t suddenly become “rested” by drawing his Enhancer wand (ie, percentage penalties don’t change). Other than the source of the Power Points, the spell casting action and effects all occur as normal for spell casting.

Pathmaster

Adder spell items are rated by the percentage of power enhancement they provide, in terms of Levels. Each Enhancer level adds 10% to the effective caster power point total. These points can be used in any fashion that power points are typically used.

Only the most powerful Enhancer on a character ever functions, and it automatically overrides and disables any other enhancers that are wielded.

The base cost of an Enhancer spell item is the $PSLE \times PCLE \times 1800$ gp.

Magic Item Modifications

There are a small number of options that can be bundled into magic items as well, that modify the base pricing.

Passive

Some magic items can be made small enough, or designed to otherwise not occupy any “space” on the character in order to be used and effective. These items either do not need to be worn, do not need to be wielded, or otherwise simply need to be present on the character to be usable. In these cases, they can be stowed in the backpack, held in a pocket, or even perhaps float independently around the character. Any item with this advantage increases its cost by x2.

Component Costs (Armor, Shields, Weapons)

If the magic item is implanted or created as part of a piece of Armor, a Shield, or a Weapon, add to the Magic Item cost the full price of a Magical version of that piece of gear. This includes the Superior Quality cost, as well as the Magical Quality cost. A non-magical armor, shield, or weapon may not contain other magical qualities

Non-Standard Magic Item Modifications		
Passive	+100% Base Cost	No longer occupies a “slot”
Components	+Magic Armor/Shield/Weapon	Imbedded in magical armor, shield or weapons

Pathmaster

Base Magic Item Cost (gp)							
Pathmaster	PSLE	PCLE	Daily	Constant	Adder	Charged	Enhancer
Spell Level	Spell	Caster	x360	x2000	x1080	x1000	x1800
1	0.3	-0.3	40	222	120	111	200
2	0.7	0.3	80	444	240	222	400
3	1.0	1.0	360	2000	1080	1000	1800
4	1.3	1.7	800	4444	2400	2222	4000
5	1.7	2.3	1400	7778	4200	3889	7000
6	2.0	3.0	2160	12000	6480	6000	10800
7	2.3	3.7	3080	17111	9240	8556	15400
8	2.7	4.3	4160	23111	12480	11556	20800
9	3.0	5.0	5400	30000	16200	15000	27000
10	3.3	5.7	6800	37778	20400	18889	34000
11	3.7	6.3	8360	46444	25080	23222	41800
12	4.0	7.0	10080	56000	30240	28000	50400
13	4.3	7.7	11960	66444	35880	33222	59800
14	4.7	8.3	14000	77778	42000	38889	70000
15	5.0	9.0	16200	90000	48600	45000	81000
16	5.3	9.7	18560	103111	55680	51556	92800
17	5.7	10.3	21080	117111	63240	58556	105400
18	6.0	11.0	23760	132000	71280	66000	118800
19	6.3	11.7	26600	147778	79800	73889	133000
20	6.7	12.3	29600	164444	88800	82222	148000
21	7.0	13.0	32760	182000	98280	91000	163800
22	7.3	13.7	36080	200444	108240	100222	180400
23	7.7	14.3	39560	219778	118680	109889	197800
24	8.0	15.0	43200	240000	129600	120000	216000
25	8.3	15.7	47000	261111	141000	130556	235000
26	8.7	16.3	50960	283111	152880	141556	254800
27	9.0	17.0	55080	306000	165240	153000	275400
28	9.3	17.7	59360	329778	178080	164889	296800
29	9.7	18.3	63800	354444	191400	177222	319000
30	10.0	19.0	68400	380000	205200	190000	342000