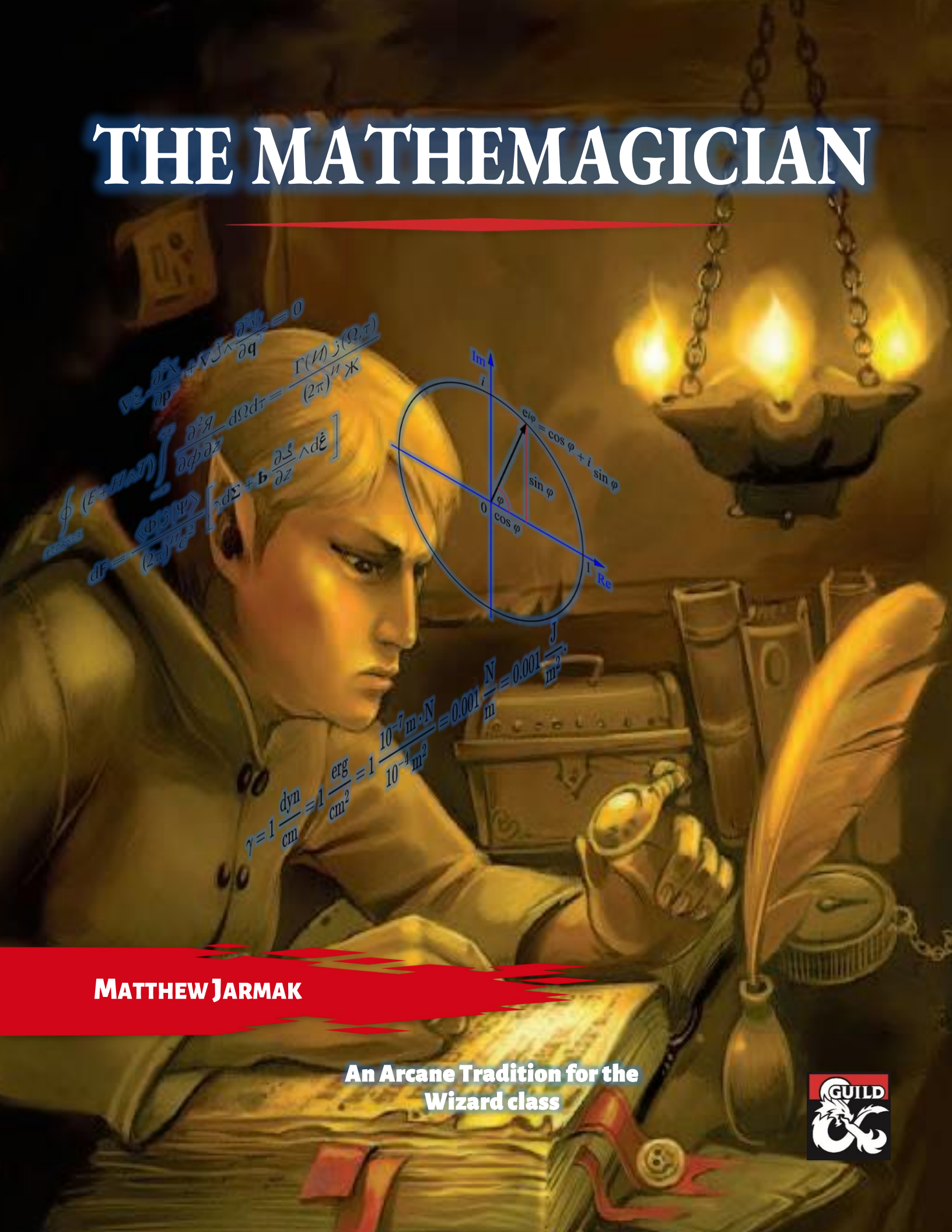


# THE MATHEMAGICIAN



$$\nabla \cdot \frac{\partial \mathbf{A}}{\partial \mathbf{p}} + \nabla \cdot \mathbf{J} \wedge \frac{\partial \mathbf{A}}{\partial \mathbf{q}} = 0$$

$$d\Omega d\tau = \frac{\Gamma(N) \zeta(N, \tau)}{(2\pi)^N} \mathcal{K}$$

$$\phi = (E + H \cdot \mathbf{n}) \left[ \frac{\partial^2 \psi}{\partial \phi \partial z} \right]$$
$$dF = \frac{\langle \Phi | \Psi \rangle}{(2\pi)^{N+1} C} \left[ \gamma d\Sigma + \mathbf{b} \frac{\partial \xi}{\partial z} \wedge d\hat{\xi} \right]$$



$$\gamma = 1 \frac{\text{dyn}}{\text{cm}} = 1 \frac{\text{erg}}{\text{cm}^2} = 1 \frac{10^{-7} \text{m} \cdot \text{N}}{10^{-4} \text{m}^2} = 0.001 \frac{\text{N}}{\text{m}} = 0.001 \frac{\text{J}}{\text{m}^2}$$

**MATTHEW JARMAK**

**An Arcane Tradition for the  
Wizard class**



On The Cover: A mathemagician struggles with learning a new spell from their spellbook.

Elements of the [Simple Microsoft Word Template](#) by Laura Hirsbrunner were used in the formatting of The Mathemagician, with thanks.

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## **MATHEMAGIC – AN ARCANE TRADITION**

Mathematics is a tradition well known to scholars, but less well known is the adjacent tradition of **mathemagic**. This arcane tradition often appears to be an ordinary scholar or lecturer until they reveal themselves as a wizard. The study of mathemagic allows wizards the ability to use their mathematical knowledge in support of their spellcasting, both with their tradition features and with the spells that they have designed to support it.

Followers of this tradition are known as **mathemagicians**. They see mathematics as the answer to the secrets of the multiverse, as the most fundamental source of knowledge and therefore of power. Mathemagicians often make friends with knowledge clerics and other scholarly types, spending long nights hunched over ancient texts to learn from them.

In battle, mathemagicians use power as precisely as they can. They seek to use their knowledge of mathematics to carefully parcel out their abilities, using exactly what is needed; no more and no less. Their knowledge of the cycles and sequences of power is what gives them their most powerful abilities.

### **LIGHTNING CALCULATION**

Starting from 2nd level, you have perfect calculation abilities and can instantly perform addition, subtraction, multiplication, and division in your head. When you see a group of objects, you can instantly count them within 1d20% error. (If you would like to count with more precision, an Intelligence ability check is usually appropriate.) Whenever you make an Intelligence ability check on a math-related topic, you add your proficiency bonus. If you already would have added your proficiency bonus, you add double your proficiency bonus instead.

### **COMBINATORIAL RECOVERY**

At 2nd level, you gain the ability to perform a combinatorial recovery. When you use arcane recovery, instead of recovering total slot levels equal to half your wizard level, you may instead roll a number of d6's equal to your Intelligence modifier. You then choose a number of rolled dice equal to half your proficiency modifier (rounded up). For each die chosen, you recover a spell slot of less than or equal to the number rolled.

### **GEOMETRIC SEQUENCING**

Beginning at 6th level, you learn the secrets of geometrically sequencing your spells together to create a greater effect. When you cast a spell, you can expend a second spell slot of the same level. If you do, treat the spell as if you had cast it in a slot 50% higher level (round up). For example, a mathemagician casts a 1st level spell, and expends an extra 1st level slot to use this ability.  $1 * 1.5 = 1.5$ , which rounds up to 2; the spell is treated as if it was cast in a 2nd level slot. If a much higher level mathemagician did the same with a 6th level spell,  $6 * 1.5 = 9$ , so it would be treated as if it was cast in a 9th level slot.

### **INTEGRAL COORDINATION**

Beginning at 10th level, when you cast a spell that affects an area (or volume), you can choose to define a percentage of its area as under the curve. The spell has no effect in the area under the curve. You can define a number of 5-foot squares equal to your Intelligence modifier as being under the curve. (Evokers often refer to this feature as derivative.)

## FIBONACCI SEQUENCING

Beginning at 14<sup>th</sup> level, you learn how to organize and plan your spells to draw power from the increasing sequence total. The first time you cast a spell of 1<sup>st</sup> level or higher after completing a long rest, record the level you cast it at. Call this value A. The second time you cast a spell of 1<sup>st</sup> level or higher after completing a long rest, record the level you cast it at; call this value B.

Once you have defined non-zero values for A and B, each time you cast a spell of 1st level or higher, record the value and add it to a running total of spells cast. Call this summation of value C. If you cast a spell that increases the value of C, and C has then become greater than or equal to the value of A + B, your sequencing has paid off. You gain a number of Fibonacci charges equal to the value of C.

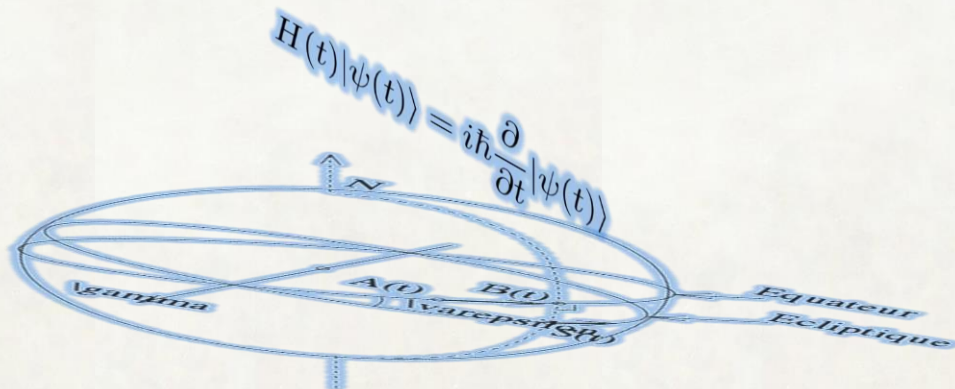
When you gain one or more Fibonacci charges, the sequence iterates itself. Set the value of A equal to the value of B, then set the value of B equal to the value of C, then set the value of C to zero. Your spells cast continue to add to the value of C as normal after iterating.

When you cast a spell that asks you to make an ability check, attack roll, or damage roll, you can spend one or more Fibonacci charges. Add the number of charges spent to the roll.

You may never hold more charges than the square of your Intelligence modifier at one time. Any charges that you would gain beyond that are lost.

When you complete a long rest, the values of A, B, and C are all set to zero, and you lose all unspent charges.

For example, a mathemagician wakes up and casts Mage Armor, a 1st level spell, so A = 1. They then cast Fireball to brew some coffee, a 3rd level spell, so B = 3. A + B = 4, so when C becomes 4 (after they cast four more levels of spells), they gain four charges. When they gain their charges, A becomes 3, and B becomes 4, while C is reset to zero. After seven more levels of spells, they will gain seven more charges; at that point, A will become 4 and B will become 7. Eleven more spell levels after that, the process will continue.



# New Spells

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## BARD SPELLS

### 1st Level

*Cahn-Hilliard Separation*  
(transmutation)

*Ward of Zeno* (abjuration)

### 2nd Level

*Enlightenment of Hypatia*  
(transmutation)

## CLERIC SPELLS

### 2nd Level

*Enlightenment of Hypatia*  
(transmutation)

### 7th Level

*Sieve of Eratosthenes*  
(necromancy)

## DRUID SPELLS

### 1st Level

*Baudhāyana Root* (evocation)  
*Cahn-Hilliard Separation*  
(transmutation)

### 2nd Level

*Wrath of Pythagoras*  
(evocation)

### 4th Level

*Law of Newton* (evocation)

### 7th Level

*Bernoulli Wave* (evocation)

### 8th Level

*Traveling Radiant Orb*  
(conjunction)

## PALADIN SPELLS

**Sorry, paladins. You're bad at math.**

## RANGER SPELLS

### 1st Level

*Baudhāyana Root* (evocation)  
*Cahn-Hilliard Separation*  
(transmutation)

### 2nd Level

*Wrath of Pythagoras*  
(evocation)

### 4th Level

*Claw of Archimedes*  
(conjunction)

## SORCERER SPELLS

### 1st Level

*Baudhāyana Root* (evocation)  
*Cahn-Hilliard Separation*  
(transmutation)  
*Ward of Zeno* (abjuration)

### 2nd Level

*Wrath of Pythagoras*  
(evocation)

### 4th Level

*Claw of Archimedes*  
(conjunction)  
*Law of Newton* (evocation)

### 7th Level

*Avrami Transition*  
(transmutation)  
*Bernoulli Wave* (evocation)  
*Sieve of Eratosthenes*  
(necromancy)

### 8th Level

*Traveling Radiant Orb*  
(conjunction)

## WARLOCK SPELLS

### 1st Level

*Baudhāyana Root* (evocation)  
*Ward of Zeno* (abjuration)

### 2nd Level

*Wrath of Pythagoras*  
(evocation)

### 4th Level

*Claw of Archimedes*  
(conjunction)  
*Law of Newton* (evocation)

### 7th Level

*Avrami Transition*  
(transmutation)  
*Bernoulli Wave* (evocation)  
*Sieve of Eratosthenes*  
(necromancy)

### 8th Level

*Traveling Radiant Orb*  
(conjunction)

## WIZARD SPELLS

### 1st Level

*Baudhāyana Root* (evocation)

*Cahn-Hilliard Separation*  
(transmutation)

*Ward of Zeno* (abjuration)

### 2nd Level

*Enlightenment of Hypatia*  
(transmutation)

*Wrath of Pythagoras*  
(evocation)

### 4th Level

*Claw of Archimedes*  
(conjuration)

*Law of Newton* (evocation)

### 7th Level

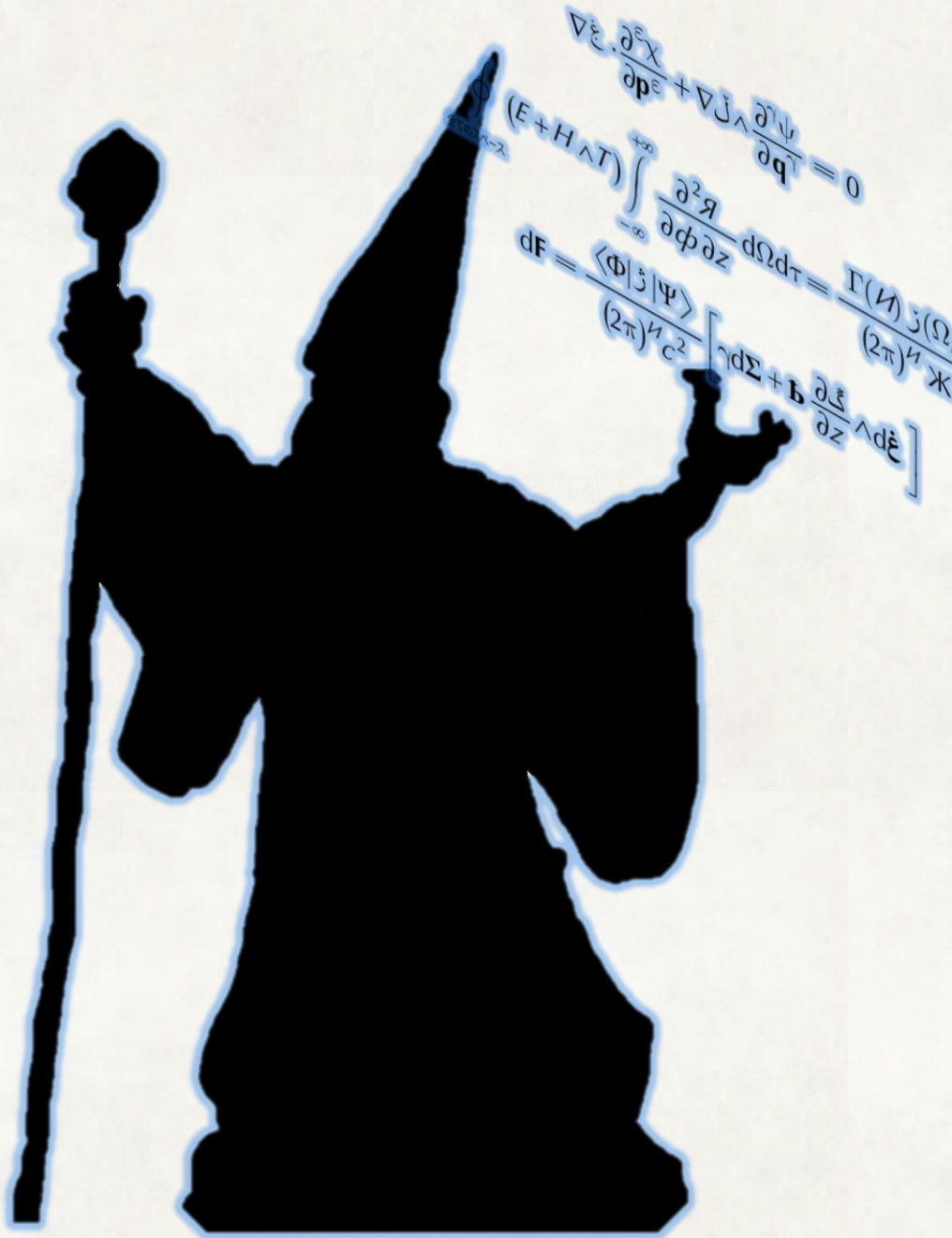
*Avrami Transition*  
(transmutation)

*Bernoulli Wave* (evocation)

*Sieve of Eratosthenes*  
(necromancy)

### 8th Level

*Traveling Radiant Orb*  
(conjuration)



# Spell Descriptions

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## AVRAMI TRANSITION

*7th-level transmutation*

**Casting Time:** 1 action

**Range:** 60 feet

**Components:** V, S, M (a crystal)

**Duration:** Concentration, up to 10 minutes

Utilizing an ancient and powerful equation, you calculate the kinetics necessary to convert a creature's fleshy body into solid crystal. You attempt to transform a creature you can see within range into a crystalline structure. If the target's body is made of flesh, stone, or other noncrystalline structure, the target must make a Constitution saving throw. On a failed save, it is restrained as its form begins to crystallize. On a success, it is unaffected.

A creature restrained by this spell must make an additional saving throw at the start of each of its turns. If the creature has taken damage that was not psychic damage since the last time it made a saving throw against this spell, it has disadvantage on its saving throw. If it successfully saves against this spell three times, the spell ends. If it fails its saves three times, it is turned to crystal and subjected to the petrified condition for the duration. The successes and failures don't need to be consecutive; keep track of both until the target collects three of a kind.

If the creature is physically broken while petrified, it suffers from similar deformities if it reverts to its original state.

If you maintain your concentration on this spell for the entire possible duration, the creature is turned to crystal until the effect is removed.

## BAUDHĀYANA ROOT

*1st-level evocation*

**Casting Time:** 1 action

**Range:** 120 feet

**Components:** V, S

**Duration:** Instantaneous

You use the diagonal of a square as a targeting design to focus energy at precisely the point you desire. Choose a square 10 feet on a side centered on a point you can see within range, then draw an interior diagonal line of that square 5 feet in width. Creatures whose space the chosen diagonal line passes through must make Dexterity saving throws, taking 2d8 radiant damage on a failure or half damage on a success.

**At Higher Levels.** When you cast this spell using a higher-level spell slot, increase the damage by 1d8 for each level above 1st.

## BERNOULLI WAVE

*7th-level evocation*

**Casting Time:** 1 action

**Range:** Self (20-foot wave)

**Components:** V, S, M (a crystal)

**Duration:** Concentration, up to 1 minute

Utilizing equations about the expansion of fluid pressure, you create a wave of energy. The wave is 20 feet wide, 10 feet tall, and 1 foot wide. When you cast this spell, you can choose the speed the wave travels at; ten feet, thirty feet, or sixty feet. The wave has potential energy, and hence damaging power, inversely proportional to the speed it travels at.

When you cast this spell, and at the start of each of your turns for the duration, the wave

travels its speed away from you. (You can choose which direction it moves on the initial cast.) Any creature that the wave travels through the space of must make a Strength saving throw, suffering damage based on the speed of the wave and being knocked prone on a failure. On a success, they suffer half damage and are not knocked prone. If the wave has a speed of ten feet, it deals 12d6 force damage. If the wave has a speed of thirty feet, it deals 8d6 force damage. If the wave has a speed of sixty feet, it deals 3d6 force damage.

**At Higher Levels.** When you cast this spell using a higher-level spell slot, the wave deals an additional 1d6 damage for each level above 7th.

#### CAHN-HILLIARD SEPARATION

*1st-level transmutation*

**Casting Time:** 1 action

**Range:** Touch

**Components:** V, S

**Duration:** Instantaneous

You precisely calculate the energy required to separate out the two liquid components of a fluid that has exactly two primary liquid components (such as “oil and water” or “wine and poison”). You can affect a fluid of up to ten gallons in an open container within range that you touch. Upon your touch, the two components instantly separate. Any additional components deemed small enough to not interfere with the spell are evenly divided between the two primary components. If you have an empty container of sufficient size that you also touch while casting this spell, you can choose for one of the components to be transported into your empty container.

**At Higher Levels.** When you cast this spell using a higher-level spell slot, you can separate a fluid that has one additional primary component for each level above 1st. When casting this spell at higher levels, it is sometimes referred to as *Allen-Cahn Separation*.

#### CLAW OF ARCHIMEDES

*4th-level conjuration*

**Casting Time:** 1 action

**Range:** 120 feet

**Components:** V, S

**Duration:** Instantaneous

You conjure a Large shining metal claw that attempts to grab and lift into the air a creature of your choice within range. Make a spell attack roll. If your target is Huge or bigger, you have disadvantage on this attack roll. On a hit, the creature is grabbed and lifted 100 feet into the air (up to the limit of the ceiling, if you are indoors or in a cave or some such) before being dropped. The creature suffers falling damage as normal (1d6 per 10 feet fallen).

**At Higher Levels.** When you cast this spell using a higher-level spell slot, on a hit, the creature is lifted an additional 10 feet in the air for each level above 4th.



### ENLIGHTENMENT OF HYPATIA

*2nd-level transmutation*

**Casting Time:** 1 action

**Range:** Touch

**Components:** V, S, M (a textbook)

**Duration:** Concentration, up to 1 hour

You draw on the enlightenment of ancient teachers, especially those who were very patient with their students and phenomenally skilled mathematicians and editors, and use their example to share your knowledge with the creature you choose to grant it to. As part of casting this spell, you touch a willing creature. For the duration, the creature touched can use your Intelligence modifier in place of their own for saving throws and ability checks.

### LAW OF NEWTON

*4th-level evocation*

**Casting Time:** 1 reaction, which you take in response to being damaged by 1 creature within 60 feet of you that you can see

**Range:** 60 feet

**Components:** V, S

**Duration:** Instantaneous

Every action demands an equal and opposite reaction. You point your finger at the creature that damaged you and a burst of force equal in magnitude to the attack that damaged you rushes back at them. The creature may make a Dexterity saving throw, taking force damage equal to the damage you took from the triggering attack on a failure or half damage on a success.

### SIEVE OF ERATOSTHENES

*7th-level necromancy*

**Casting Time:** 1 action

**Range:** 60 feet

**Components:** V, S, M (a sieve)

**Duration:** Instantaneous

You scatter through the life energy of creatures you target with this spell, forcing them to fall into consistent patterns defined in the ancient ways. The sorting effect targets creatures within a 20' radius sphere, centered on a point you can see within range. All creatures within the sphere must make Wisdom saving throws; on a failure, they are sieved.

A sieved creature has its hit points reduced to the largest prime factor of its current hit points, to a maximum loss of 100 hit points.

**At Higher Levels.** When you cast this spell using a higher-level spell slot, the maximum hit point reduction is increased by 20 for each level above 7th.

#### PRIME FACTORIZATION

If you don't want to apply the Sieve of Eratosthenes out on parchment the way he would have done it, prime factorization calculators are available on the internet.

### TRAVELING RADIANT ORB

8th-level conjuration

**Casting Time:** 1 action

**Range:** 90 feet

**Components:** V, S, M (discarded or broken items or other pieces of junk)

**Duration:** Instantaneous

You define a square 40 feet on a side, centered on a point you can see within range, as the area of your traveling radiant orb. Choose a creature within the area as the origin creature. A glowing rainbow orb then bounces between each creature within the area, following the shortest possible path that reaches each creature in the area and then returns to the origin creature. The orb is not affected by cover less than total cover, but it cannot pass through total cover.

Each creature touched by the orb is momentarily marked with its rainbow glow. When it returns to the origin creature, the glow intensifies to a blinding light, and each creature marked by it must make a Constitution saving throw, taking 3 radiant damage per 5 feet the orb traveled on a failure or half damage on a success.

### WARD OF ZENO

1st-level abjuration

**Casting Time:** 1 action

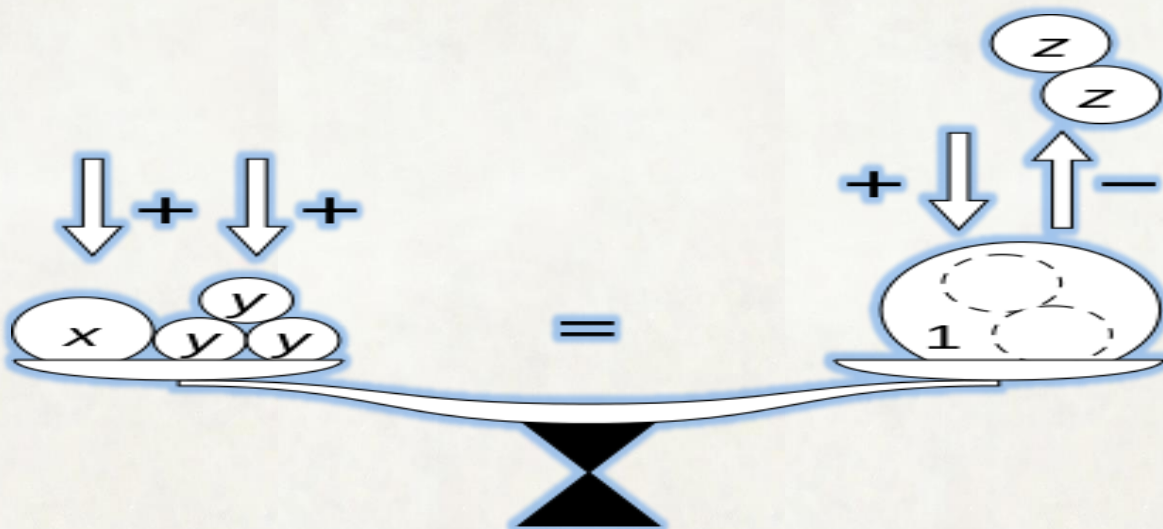
**Range:** Touch

**Components:** V, S, M (a broken arrow shaft)

**Duration:** Concentration, up to 1 hour

You touch a creature and ward them against ranged attacks. Because any ranged attack must first traverse half the distance between the attacker and the target, and then infinitely traverse half the remaining distance thus making it impossible to reach them, motion is an illusion.

Unfortunately, your insistence that ranged attacks are impossible only makes them slightly more difficult. Whenever a creature makes a ranged attack against the warded target, calculate the range as if the distance were 50% greater. This may make the attack impossible or grant it disadvantage. (For example, a warded creature is attacked by an attacker wielding a short bow who is 60 feet away. The range is considered to be 90 feet instead. Because a short bow has a range of 80/320, the attack has disadvantage.)



## WRATH OF PYTHAGORAS

*2nd-level evocation*

**Casting Time:** 1 action

**Range:** 120 feet

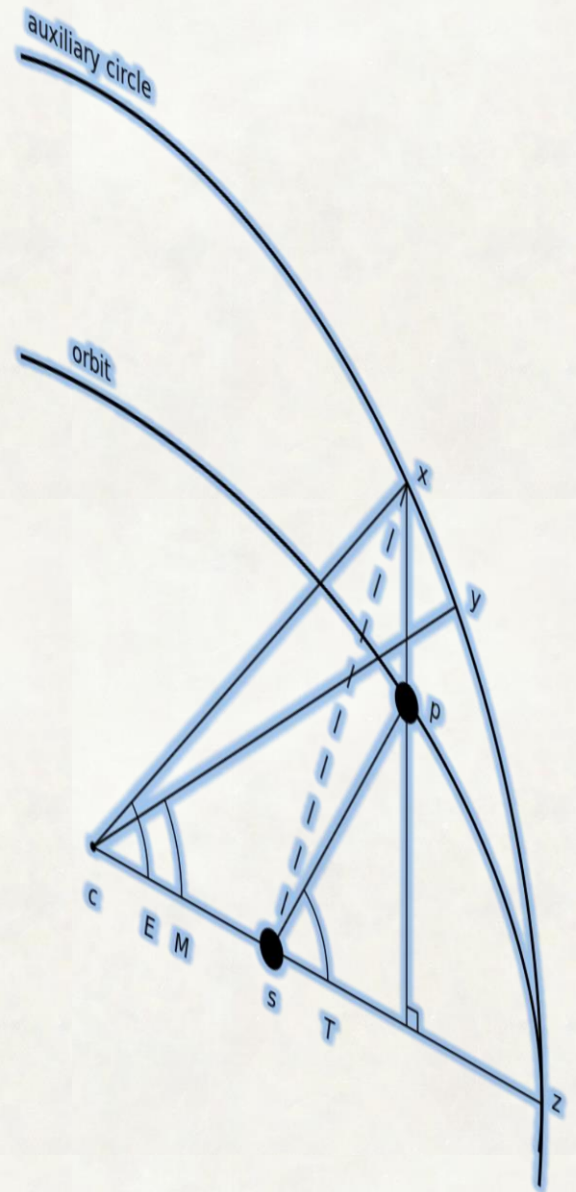
**Components:** V, S, M (a protractor)

**Duration:** Concentration, up to 1 round

You inscribe glowing golden lines that form a right triangle with a hypotenuse 25 feet in length, centered on a point you can see within range. The area within the triangle is uncomfortably hot and grows hotter over the duration of this effect.

If you maintain concentration on this spell for the full duration (until the end of your next turn), the triangle explodes, dealing 8d6 fire damage to creatures within it, who may make a Dexterity saving throw to take half damage.

**At Higher Levels.** When you cast this spell using a higher-level spell slot, it deals an additional 1d6 damage for each level above 2nd.



### GOOD LENGTHS FOR TRIANGLE SIDES

Some useful side lengths for Wrath of Pythagoras are:

*One side of 20 feet and one side of 15 feet*

*One side of 10 feet and one side of 22.91 feet*

*One side of 24.5 feet and one side of 5 feet.*