

PLATO'S REPUBLIC

Twilight 2024

Part 2 | Week 4

The philosophical education



The Sun and Sunlight Analogy

Just as

The Sun is to things visible to the eye,

So

The Good is to invisible forms seen by the mind's eye.

page 508

Ana-logia: in same ratio (*logos*)

a is to b as c is to d

1 : 2 as 3 : 6

The analogy of vision and the visible

Just as

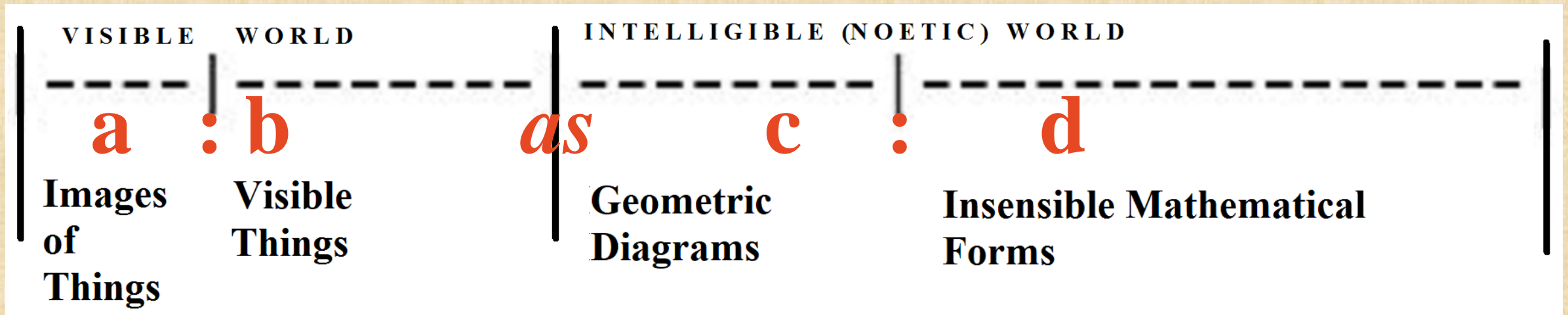
Shadows of visible things *are to* visible things,

So

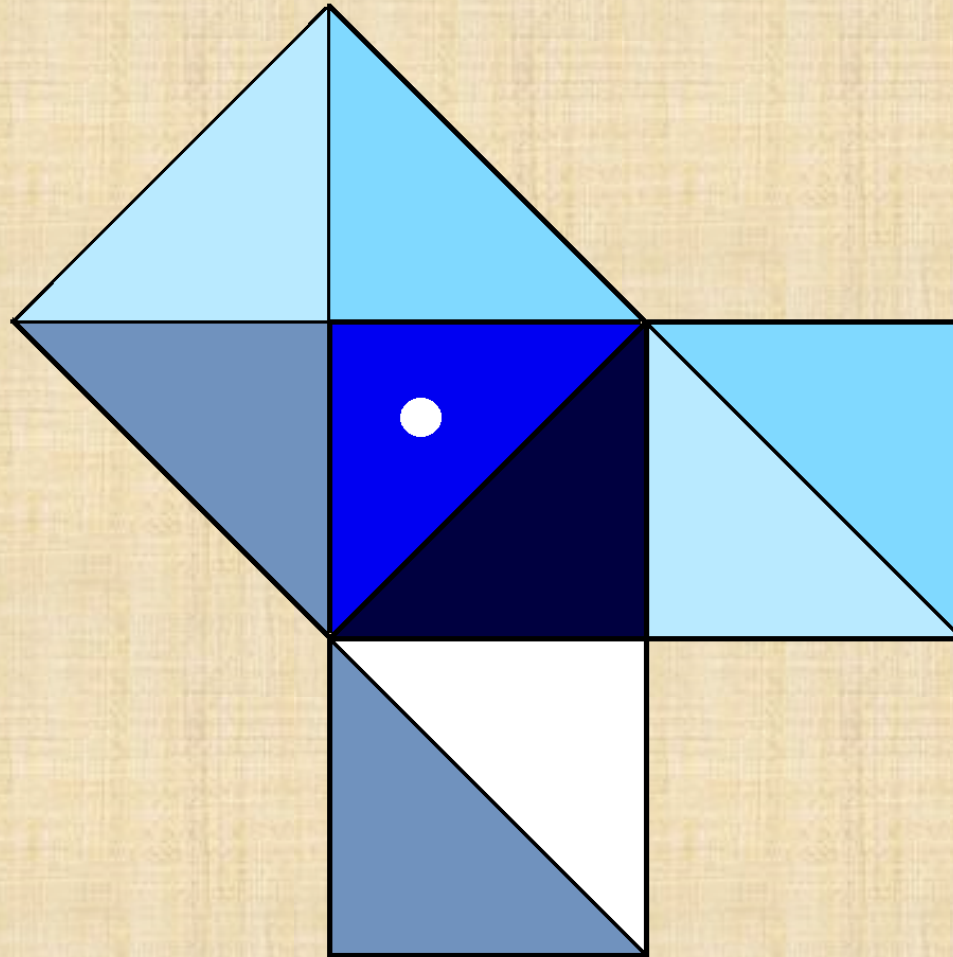
Geometric diagrams *are to* forms.

pages 509e-510c

The Divided Line as a continuous ratio



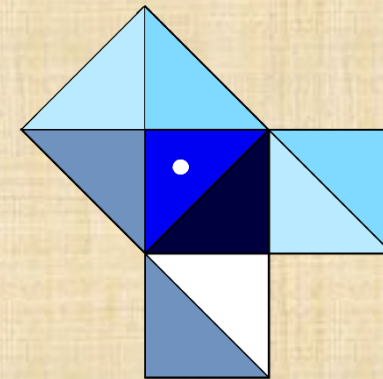
Geometric Diagrams are sensible things used to express their insensible their form



The Sun and Sunlight Analogy

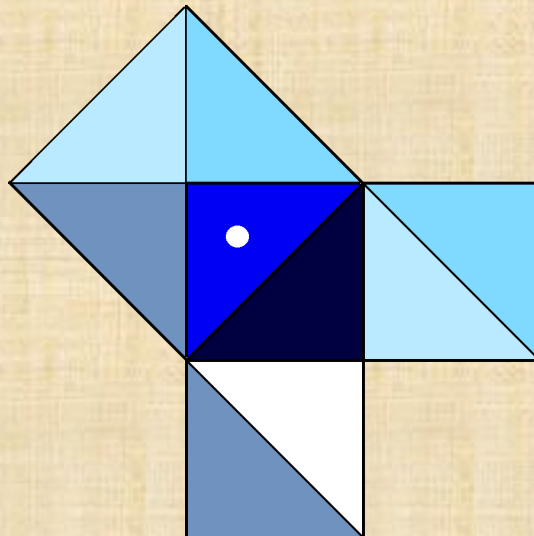
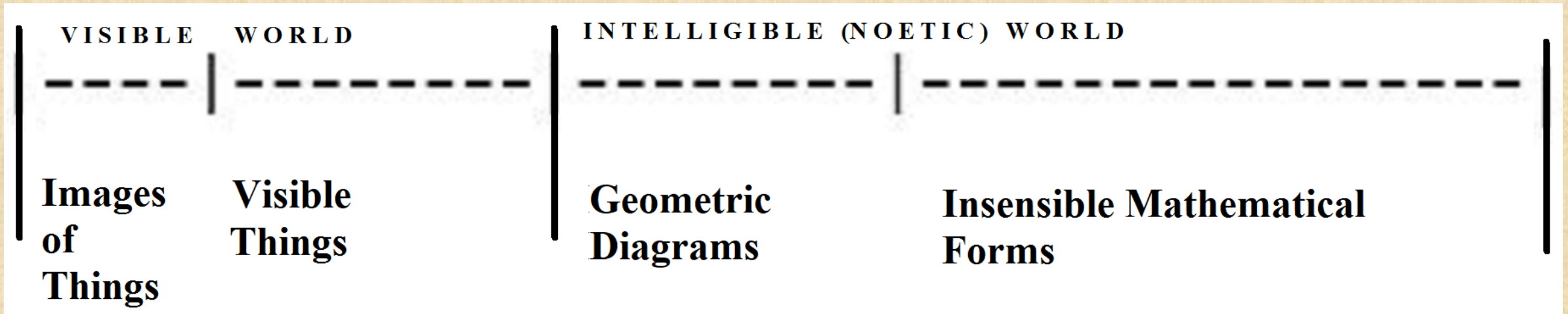
Just as reflections of visible things are to visible things,

So geometric diagrams are to invisible forms.

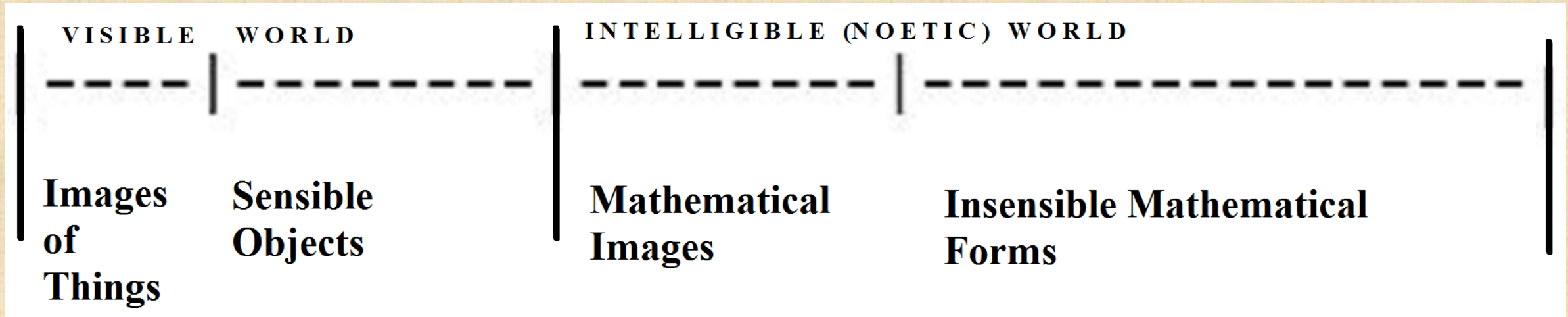


page 509e -510c

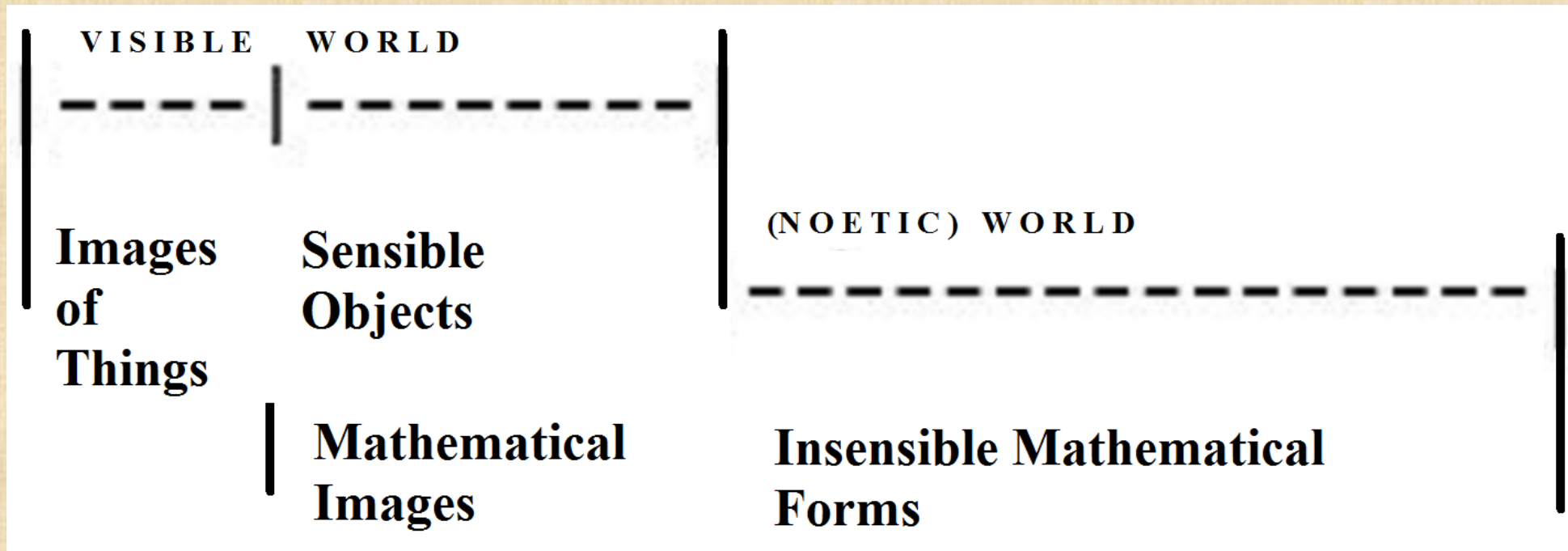
The Divided Line



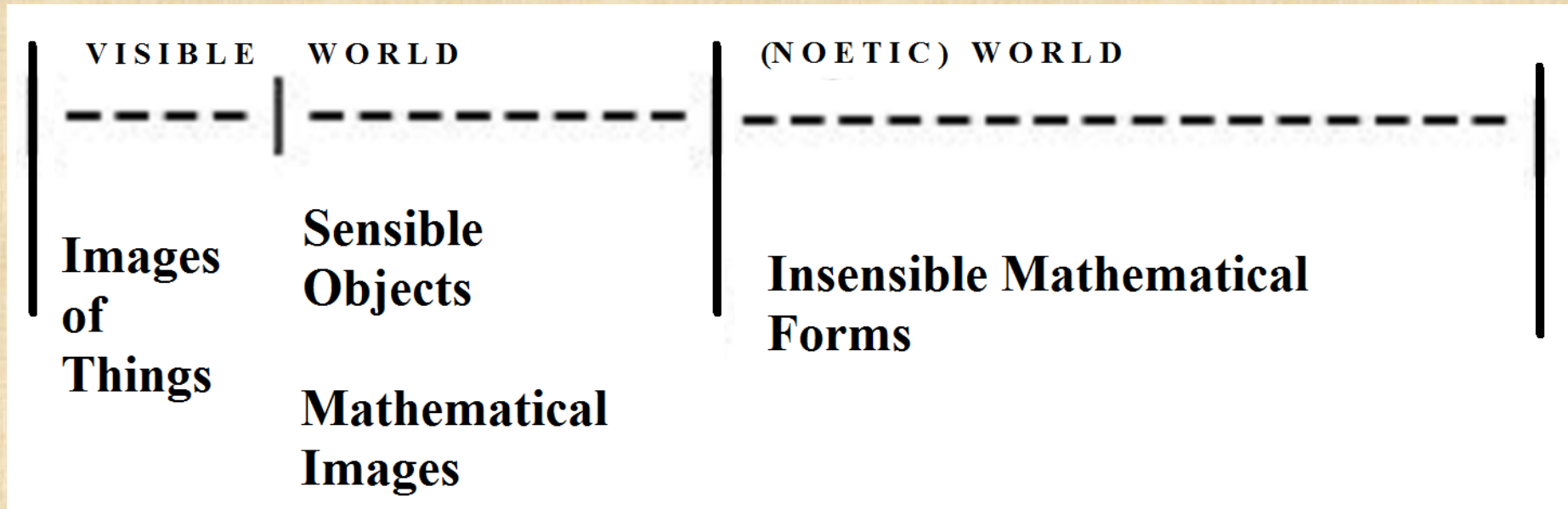
The Divided Line for all the senses



The Divided Line as a continuous ratio



Divided Line reduced to a 3-term proportion



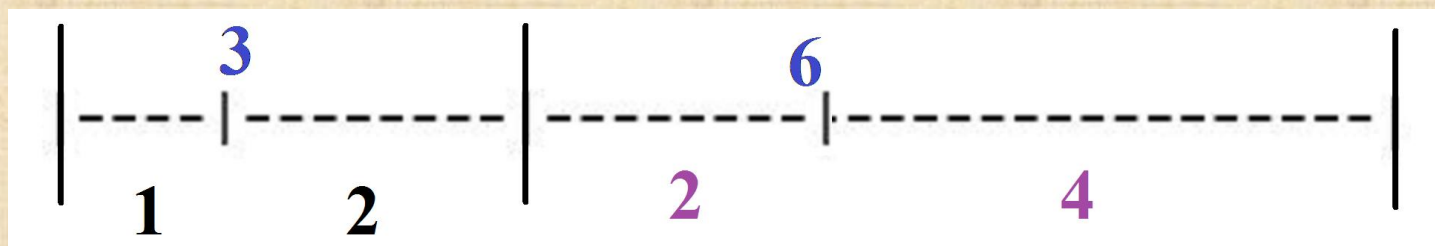
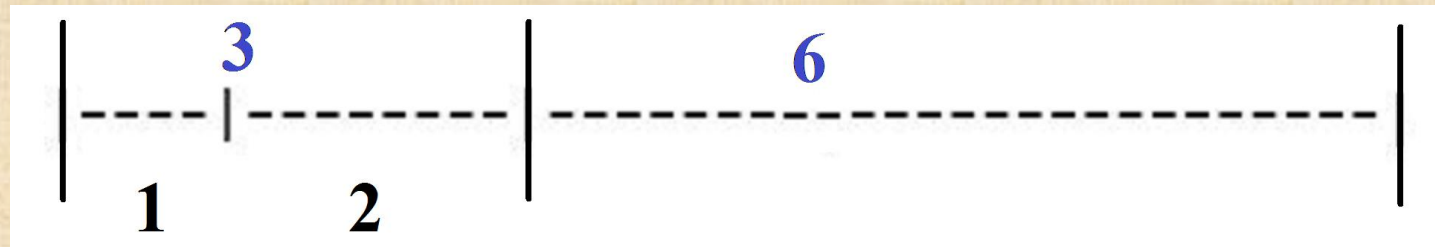
Just as images are to visible things so visible things are to forms.

Like a “geometric ratio” e.g., the double:

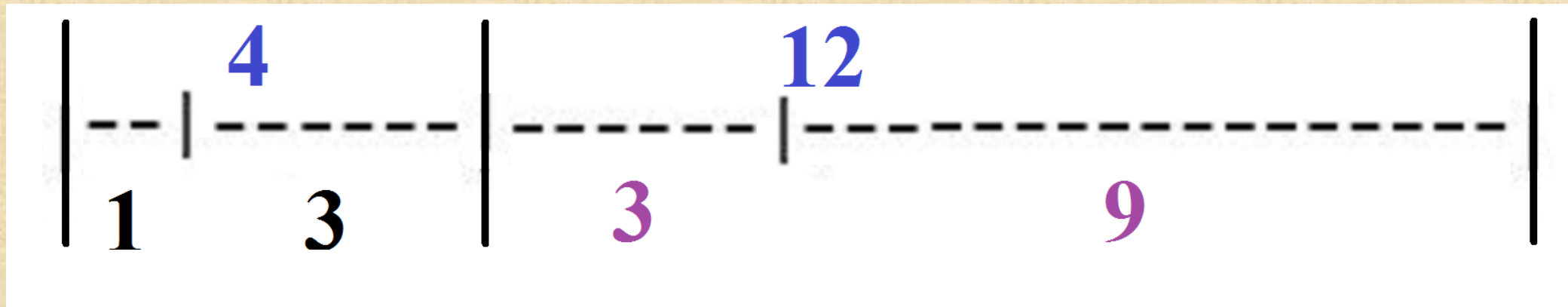
Just as 1 is to 2 so 2 is to 4...

Just as 3 is to 6 so 6 is to 12

The Divided Line in the double ratio

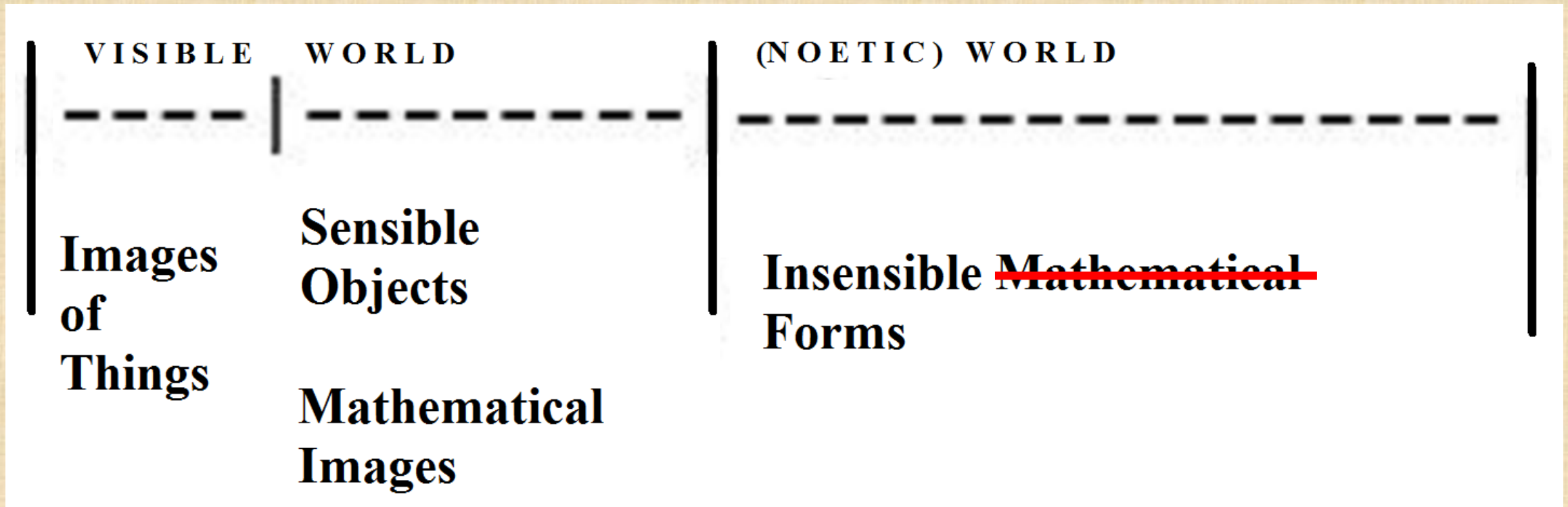


The Divided Line in the *triple* ratio

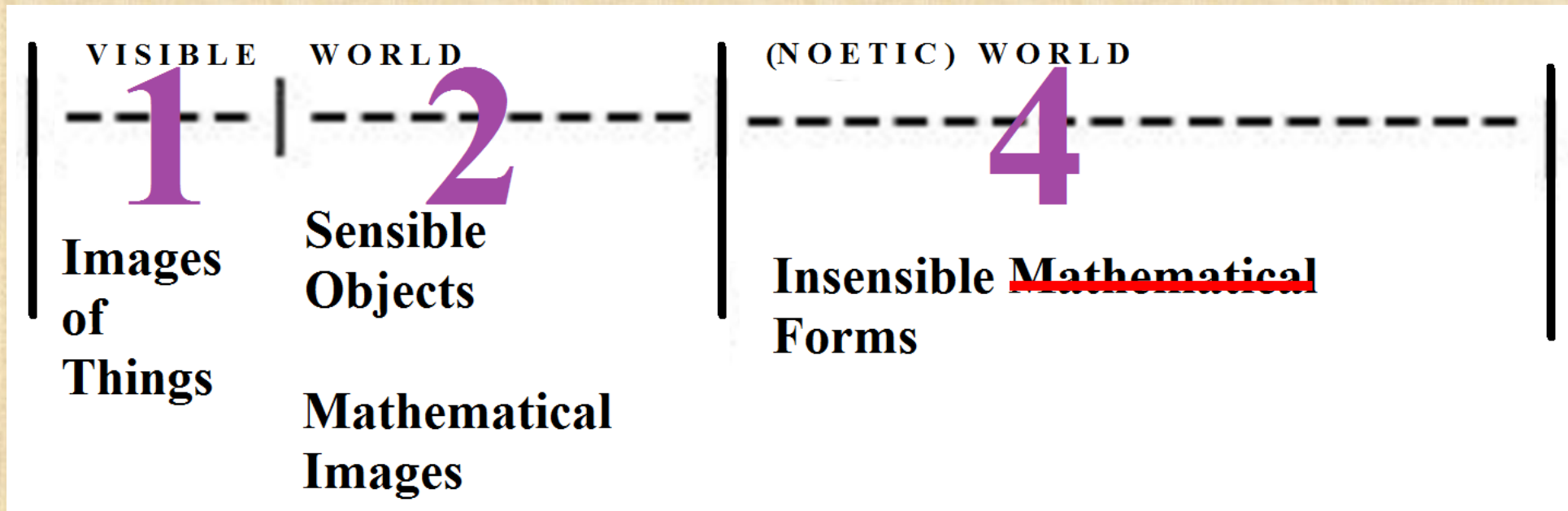


No matter where the first cut is made, the middle terms (here 3 & 3) must always be the same.

Divided Line reduced to a 3-term proportion



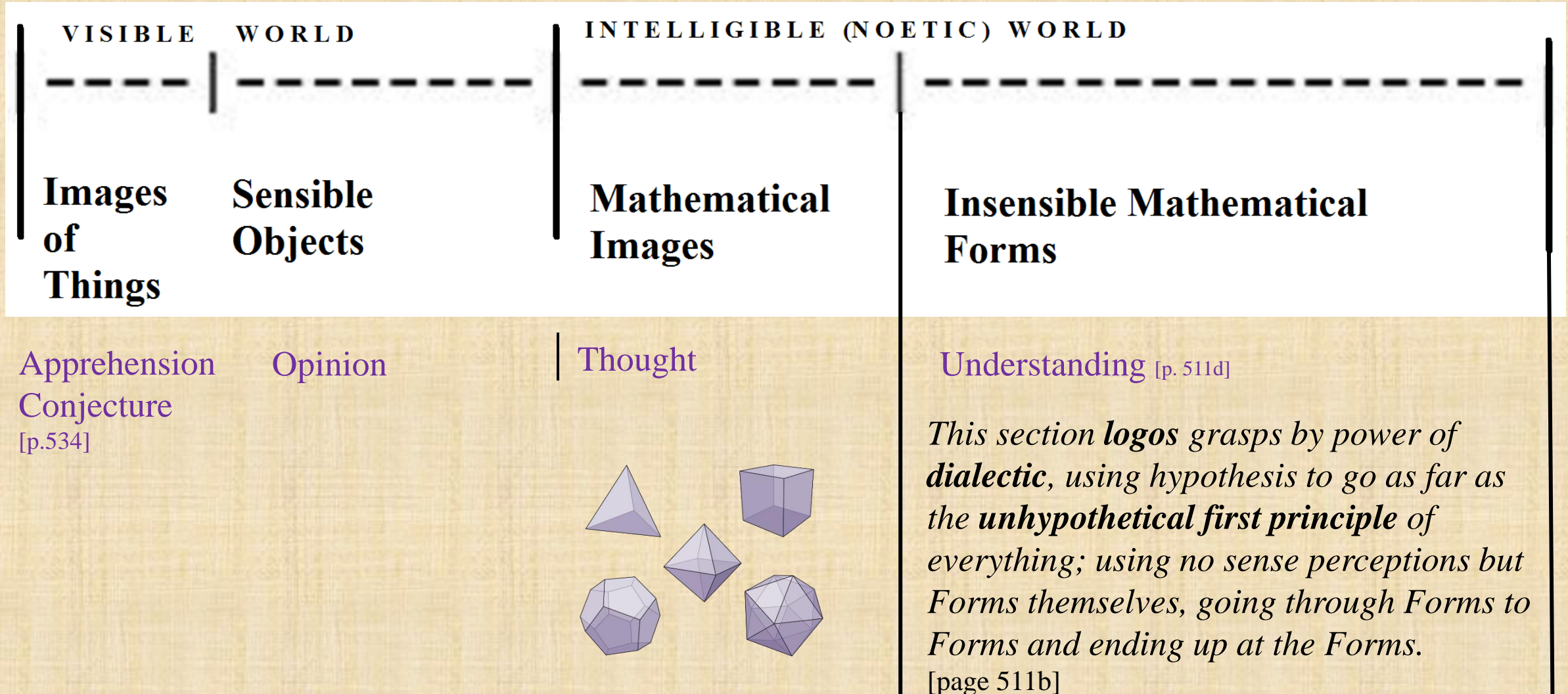
The Divided Line as 3-term proportion (e.g., double)



Ratio = *logos*


Proportion = *ana-logia*


Hierarchy of Reality and the corresponding Hierarchy of Knowledge





Counting Syllables

Homeric Hexameter



 Over the sea, past Crete, on the Syrian shore to the southward,


 Dwells in the well-tilled lowland a dark-haired Aethiopian people,



 Skilful with needle and loom, and the arts of the dyer and carver,


 Skilful, but feeble of heart; for they know not the lords of Olympus,


 Lovers of men; neither broad-browed Zeus, nor Pallas Athene,


 Teacher of wisdom to heroes, bestower of might in the battle;


 Share not the cunning of Hermes, nor list to the songs of Apollo,


 Fearing the stars of the sky, and the roll of the blue salt water.

Goal of the education program is to...

*...to turn around the mind's eye towards the formal source
(not towards the manifestations)*

περι-αγω *peri-agō*

518d 'lead about': περι-αγωγης *peri-agoges*

521c 'bringing of a soul around'

ψυχης περιαγωση *peri-agouē*

μετα-στρεφω *meta-strephō*

526e 'turn towards' μετα-στρεφεςθαι

532b μετα-στροθη



The One itself is never divided...

...only, *things that we call 'one'* are divided.

When we quarter something and call one part 'one quarter', this means that the one is now applied to the part, so that it is 'one-part-of-four'.

Thus, first we call the *whole* 'one'.

Then we call the *part* 'one.'

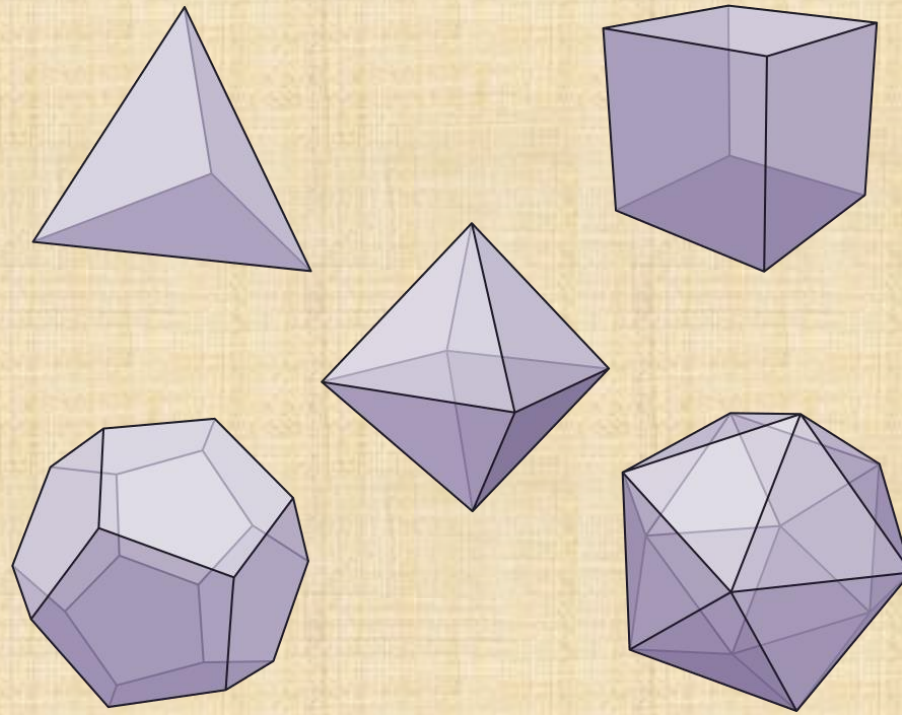
But 'one' in its *formal self* stays the same.



The hierarchy of Mathematical Sciences according to dimensions

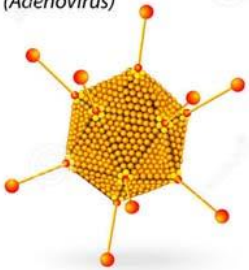
- The original One aligned with the point zero dimension
- The odd/even linear alternation 1, 2, 3... one dimension
- Plane geometry two dimensions
- Solid geometry three dimensions
- Astronomy (solids moving in time) four dimensions

Platonic Solids

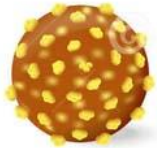


VIRAL SHAPES

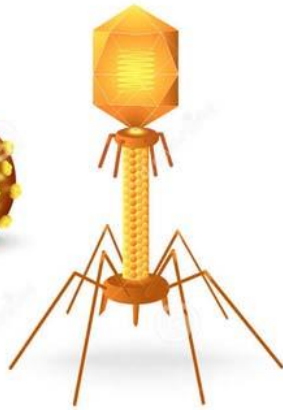
Polyhedral
(Adenovirus)



Spherical
(Influenza)



Helical
(Tobacco mosaic virus)



Complex
(Bacteriophage)

HIV Virus



Musical Ratios

Even before Plato, the Pythagoreans found the harmonic ratios visible in the wavelengths in string

