

STUDY QUESTIONS: FITTING IDEAS INTO THE WORLD

1] The word *eidōs* appears 59 times in Euclid's *Elements*, and every single occurrence of the word is found in either Book VI, which plays out the Eudoxian theory of proportions developed in Book V, or in Book X, the excruciatingly complex attempt at classifying and thus grasping the various ways in which magnitudes can be incommensurable.¹ We should be cautious about making too much of this strange concentration of the word *eidōs* within two sections of Euclid. Still, the question is unavoidable: Why might this notion of 'eidōs' be most needed in these two investigations?

2] What is the relationship between the word *eidōs* as used in Euclid, and as used in *The Republic*?

3] If the metaphor of the cave and the discussion of the divided line are both considerations of the nature of an 'eidōs' and the way in which we can grasp 'eide', what is the constant sense of 'eidōs' between these two passages?

4] What does Plato's ordering of the education of the Guardians say about the nature of the 'eide'?

5] Make a list of the attributes of an eidōs, gleaned from this reading

6] Speculate, based on the following three clues, on what the relationship might be between the Platonic notion of an 'eidōs' and the role of the idea of shape in Greek mathematics:

[a] There is a close connection between Plato's conception of the *eidōs* of something, and the Aristotelian demand for a definition as the statement of the *ti esti* of something.

[b] Plato chooses to use for this notion which has developed into our word 'idea' the word that Euclid employs for 'shape' or 'figure'.

[c] In *Meno*, when Socrates gives an example of how to define something, he chooses the example of a 'shape'. He notably avoids using the term *eidōs*, but uses instead the word *schema*. Then, as we know, to give an example of how knowledge is acquired, he chooses the example of finding a particular length by locating it as part of a structure, or shape.

¹ Here is a typical example of Euclid's use of the word:

"From this it is evident that, if three straight lines are proportional, then, as the first is to the third, so is the *eidōs* described on the first to that which is similar and similarly described on the second." [Book VI, Proposition 19, lines 34-37]. The word *eidōs* here seems to mean simply shape or figure.