

# Exam 1

## Scientific Thought I

Fall 2007

Answer all questions. Leave a space between answers. You have 50 minutes.

1. [10 pts.] What is everything made of according to Thales? Anaximander? Anaximenes? Which of these is closest to modern theory of matter? Justify your answer to the latter question.
2. [6 pts.] In what respect does Anaxagoras agree with Parmenides about the properties of what exists? In what respects does he disagree?
3. [14 pts.] How are the theories of Anaxagoras and Empedocles alike? How do they differ?
4. [22 pts.] Prove the following proposition from Euclid.

*To place at a given point (as an extremity) a straight line equal to a given straight line.*

You don't need to state the numbers of the definitions, postulates, etc., that you use but you should indicate where you are using one; e.g., you can write "[C.N.]" when you use a common notion.

5. [9 pts.] For each of the following, say (i) whether Plato would classify it as knowledge or opinion, and (ii) what kind of knowledge or opinion he would classify it as. Explain why he would classify them in these ways.
  - (a) Thinking there is a desk at the front of the room on the basis of seeing it.
  - (b) Thinking that the angles in a triangle make two right angles on the basis of reading the proof in Euclid.
6. [10 pts.] In the *Phaedo* Socrates said he wanted things to be explained by showing how it is best for them to be that way. Describe two explanations of this kind that are presented in the *Timaeus*.
7. [9 pts.] State a similarity and a difference between Timaeus's account of matter and that of Empedocles.
8. [4 pts.] Which of the following terms of Aristotle apply to which of Euclid's terms?

Aristotle	Euclid
Principle	Definition
Axiom	Postulate
Posit	Common notion
Supposition	Proposition
Definition	

[Turn Page]

9. [8 pts.] How did skeptics use the concept of demonstration to argue that understanding is impossible? What does Aristotle think is right and wrong in this argument?
10. [8 pts.] State a similarity and two differences between the views of Plato and Aristotle on how the principles of a science are known.

Keep this exam; just turn in your answers.

There is no class on Wednesday; the next class is Friday.