

Your name: _____

Metaphysics Exercise 3

Hum. 11600 Sections 01 and 02.

1. When water evaporates, the resulting gas has much greater volume than the original water had. Which of the following is the correct explanation of this, according to Aristotle?

- a. The original substance, water, is still there, but now, because it has become gaseous, its form has much greater quantity.
- b. The original substance, water, has been replaced by a different kind of substance, air; although there is the same quantity of the new kind of substance, its volume is bigger because there are more empty spaces between its particles.
- c. The original matter (the matter of water) has been replaced by a new kind of matter (the matter of air); this causes the form to grow in accidental quantity, even though its accident of weight remains the same.
- d. The original matter remains, but with a new form (the form of air); in addition (and because of this), the accident of quantity which was in the water has been replaced by a different accident of quantity.
- e. Water is cold and moist; air is hot and moist (as Aristotle asserts in reading (U)). The new accident (or substantial quality) of *heat* which is in the air makes it grow larger than the water, even though its matter and quantity are the same.

2. As far as you can tell from our reading, which of the following statements would Aristotle and Plotinus *disagree* about?¹

- a. Bucephalus is composed (wholly or partly) of accidents.
- b. A sensible substance has both essential characteristics—characteristics such that, if you remove them, the substance ceases to exist—and accidental ones (ones that are not essential).
- c. A fire can be called a “substance” for (roughly) the same reason that a picture of a fire can be called a “fire.”
- d. The sensible world is composed of sensible substances.
- e. All of the above.
- f. (a) and (c).

3. As far as you can tell from our reading, which of the following statements would Plotinus and Porphyry *disagree* about (in the above sense of “disagree”)?

¹By “disagree” here I mean that one of them would assert the statement in question and the other would deny it. If they would both assert the statement, but would mean different things by the words in it, then that counts as *agreeing* for these purposes.

- a. The term “quality” applies univocally to the heat in hot water and the heat which is a differentia of fire.
- b. Heat in water is an accident; heat in fire is (part of) a substance.
- c. Heat is an accidental characteristic of water, but an essential characteristic of fire.
- d. The problem of the categorical status of the differentiae arises in Aristotle because Aristotle’s theory of sensible substance is incorrect.
- e. (a) and (b).
- f. (c) and (d).

4. It is a proprium of substance that it is receptive of contraries, and cold is the contrary of heat. According to Porphyry, why can’t fire receive cold?

- a. Sometimes a substance can receive only one of two contraries. *Receptive of contraries* is a proprium of substance only in the sense that every (sublunar) substance can receive both contraries in *some* cases.
- b. Because heat is a “substantial quality” in fire, fire does not “receive” heat at all. Therefore, it doesn’t receive cold, either.
- c. Because heat is not “in” fire, fire does not “receive” heat at all.
- d. The term “quality” is used equivocally. The “qualities” that have contraries are the members of the genus (category) of quality. The heat in fire is called a “quality” in another sense of the word; it does not have a contrary.
- e. The *form* of fire is what makes it a substance, so fire can receive contraries only of the qualities of its form. Heat is a quality of the *matter* of fire.

5. Which of the following best summarizes John Philoponus’ argument in our reading?

- a. Aristotle’s theory of substance and accident is mistaken; it must be fixed by adding Porphyry’s theory of “substantial quality.” Therefore we should not be surprised if we also need to add “substantial quantity.”
- b. Porphyry is right to defend Aristotle against Plotinus, by means of his (Porphyry’s) theory of “substantial quality.” Therefore we should not be surprised if, in order to complete the defense, we also need to add “substantial quantity.”
- c. Plotinus is right to say that sensible substances are composed of accidents in matter. Therefore, we should not be surprised that a body is essentially a kind of accident (three dimensional continuous quantity) in matter.
- d. Aristotle is wrong to say that body (a kind of quantity) can be prior to substance, because, as Porphyry points out, accidents are never prior to substance.
- e. Aristotle says that *body* is a substance and also that it is a kind of quantity. He says this because he had not discovered my theory of “substantial quantity.” A body is really neither a substance nor a quantity, but a “substantial quantity.”