Milesians

1. What ideas do Thales and Anaximander have in common? Where do they disagree? What, do you suppose, accounts for their disagreement?

2. Explain the role of the *apeiron* in Anaximander’s system. Discuss at least two possible interpretations of what Anaximander means by ‘apeiron’.

3. Discuss and amplify, if you can, the claim (made by Bertrand Russell) that “the Milesian school is important, not for what it achieved, but for what it attempted.”

4. What was Anaximander’s objection to making a common element (such as *water*, as Thales had proposed) the *archê*? How did Anaximenes, who proposed *air* as the *archê*, avoid this objection?

5. It is often claimed that Anaximenes attempted to account for qualitative differences in quantitative terms. What can be said in favor of this claim? What can be said against it?

6. Compare the role of the traditional Greek elements in the theories of Anaximander and Anaximenes. Discuss the importance of the notion of *opposition* in each of the theories.

7. Compare the role of the notion of *opposition* in the theories of Anaximander, Anaximenes, and Heraclitus.

Heraclitus

1. The notion of *logos* plays an important role in Heraclitus’s thought. Explain, in as much detail as you can, what the notion is and what role it plays.

2. According to Plato, Heraclitus said that it is impossible to step into the same river twice. Heraclitus’s own words, in fragment 12, read as follows: “Upon those that step into the same rivers different and different waters flow . . .”. What philosophical issue is Heraclitus raising? What does Plato take Heraclitus’s position on that issue to be? Does fragment 12 support Plato’s interpretation? What other interpretation is possible?

3. Did Heraclitus believe, as Plato reports, that “you cannot step into the same river twice”? Discuss alternative interpretations of Heraclitus’s views about the persistence of material objects through time.

4. Making use of some of Heraclitus’s examples, explain his doctrine of the *unity of opposites*. Be sure to explain in each case the sense in which the opposites are *one*.

5. What, according to Plato, was Heraclitus’s doctrine about the persistence of material objects over time? Critically discuss Plato’s interpretation of Heraclitus, citing the fragments where appropriate.
Parmenides

1. Parmenides says (B2): “Neither may you know that which is not (for it is not to be accomplished) nor may you declare it.” What does Parmenides mean by this? How does he argue that it is impossible to “know or declare that which is not”?

2. Parmenides says (B2): “Neither may you know that which is not (for it is not to be accomplished) nor may you declare it.” What does Parmenides mean by “that which is not”? Present and critically evaluate his argument that it is impossible to “know or declare that which is not.”

3. Parmenides says (B2): “Neither may you know that which is not (for it is not to be accomplished) nor may you declare it.” What does Parmenides mean by “knowing or declaring that which is not”? How does he argue that it is not possible to do this? Evaluate his argument.

4. Present and critically evaluate Parmenides’ argument for the conclusion that “neither may you know that which is not (for it is not to be accomplished) nor may you declare it” (B2). In your answer, be sure to explain what Parmenides means by “knowing or declaring that which is not.”

5. Parmenides’ central thesis is: “Neither may you know that which is not … nor may you declare it” (B2). Explain what Parmenides means by this. Then present and critically discuss the argument he gives (in B2, B3, and B6) in support of this thesis.

6. Parmenides’ central thesis is: “Neither may you know that which is not … nor may you declare it” (B2). Explain what Parmenides means by this. Then present and critically discuss the argument he gives (in B2, B3, and B6) in support of this thesis. (Please do not dwell on evaluating the thesis itself, or on the consequences he derives from it; rather, set out and evaluate the argument he gives for it.)

7. Parmenides objects to the possibility of talking (or thinking) about what is not. (a) What would Parmenides count as cases of talking or thinking about what is not? (b) What would he find objectionable about these cases?

8. According to Parmenides (B8), such terms as “to come to be and to perish, to be and not <to be>, and to change place and alter bright color” are expression which “mortals have established, persuaded that they are true.” Obviously, Parmenides thinks that these terms are empty, designating nothing in reality. Why does he think this?

9. What underlying assumptions about language and meaning does Parmenides’ argument against saying what is not require? Evaluate these assumptions.

10. A central thesis of Parmenides is: “the same thing is for thinking and for being” (B3) What does Parmenides mean by this? What considerations might be given in support of this contention?

11. From his contention that it is impossible to speak or think about what is not, Parmenides derives conclusions that offend common sense. What are these conclusions? How might one try to show that they do, indeed, follow from Parmenidean premises?

12. From his central thesis that it is impossible to speak or think about what is not, Parmenides derives conclusions (in B8) that offend common sense. What is the meaning of Parmenides’ central thesis? What are these conclusions? How might a Parmenidean try to show that they follow logically from the central thesis?
13. From his central thesis that it is impossible to speak or think about \textit{what is not}, Parmenides derives conclusions (in B8) that contradict several common sense beliefs. What is the meaning of Parmenides’ central thesis? What are these conclusions? How might a Parmenidean try to show that they follow logically from the central thesis?

14. Why does Parmenides find it impossible to say or think what is not? How is this impossibility supposed to lead to the conclusion that there can be no generation, destruction, change, motion, or plurality?

15. According to Parmenides, anyone who asserts (or believes) that there are such things as generation, destruction, change, motion, or plurality is forced to talk (or think) about what does not exist. What arguments can Parmenides use to support this contention?

16. Parmenides apparently believes that his central thesis leads to some shocking conclusions: that there can be no such thing as generation, or destruction, or change, or motion, or plurality. What arguments might Parmenides (or a Parmenidean) use to establish these conclusions? How good are these arguments?

**Zeno**

1. Why, according to Zeno, does the infinite divisibility of a race-course make it impossible for a runner to traverse the course? (You may discuss various possible reasons Zeno may have had, or isolate what you take to be the most compelling reason and examine it.)

2. Zeno thought that the infinite divisibility of a race-course makes it impossible for a runner to traverse the course. What argument(s) might he have used to show that an infinitely divisible distance cannot be traversed? (You may discuss various arguments, or isolate what you take to be the most compelling one and examine it.)

3. Zeno argued that if space is infinitely divisible, motion is impossible, e.g., that it is impossible for a runner to traverse a race-course. His argument, however, is incomplete. How should it be filled out? Discuss different interpretations, indicating which you think is most likely to have been what Zeno intended. For each interpretation you consider, show what, if anything, is wrong with Zeno’s argument.

4. Does “R makes all the Z-runs” entail a contradiction? Does “R makes all the Z-runs and no other runs” entail a contradiction? How do your answers to these questions bear on Zeno’s Paradox of the Race-course?

5. In the second half of Zeno’s \textit{Argument Against Plurality}, he attempts to show that each of the pluralist’s “many beings” must be infinitely large. What is his argument? What, if anything, is wrong with it?

6. In the second half of Zeno’s Argument Against Plurality (in B1), he attempts to show that if something is infinitely divisible, it must be infinitely large. Reconstruct his argument, as best you can. What, if anything, is wrong with this argument?

7. What seemingly plausible premises might Zeno have used to argue that an infinitely divisible distance is infinitely long? Show what is wrong with the argument.

8. Does the assumption that a “super-task” has been performed lead to a contradiction? Critically examine the best argument for thinking that it does.
9. Present a reconstruction of Zeno’s paradox of the race course that contains the premise that it is logically impossible to traverse an infinite number of finite distances. First present the argument you have reconstructed as forcefully as you can; then criticize it.

10. Present (as forcefully as you can) a reconstruction of the argument of Zeno’s Paradox of the Race Course that contains the premise that it is logically impossible to traverse an infinite number of finite distances. Then criticize the argument.

11. According to Thomson’s reconstruction of the argument of Zeno’s Race Course Paradox, we can logically deduce a contradiction from the assumption that the runner makes infinitely many Z-runs. What is the argument? What, if anything, is wrong with it?

12. According to Thomson, we can logically deduce a contradiction from the assumption that a super-task has been performed. What is a super-task? Why is crossing a race course supposed to require the performance of a super-task? What is the argument that a contradiction follows from the assumption that a super-task has been performed? What, if anything, is wrong with this argument? What bearing does this have on Zeno’s Paradox of the Race Course?

13. What is the “Pythagorean” conception of space? Why did Zeno think that there could be no such thing as notion in Pythagorean space?

14. Why might Zeno’s Paradox of the Arrow be thought to involve a confusion between (durationless) instants of time and (very tiny but finite) intervals of time? Does it?

15. Zeno’s argument, in his Paradox of the Race Course, is sometimes interpreted as having the conclusion that motion can never be completed (“progressive” version), and sometimes interpreted as having the conclusion that motion can never begin (“regressive” version). How do the progressive and regressive versions of the argument differ? Does it matter in which of these two ways we construe Zeno’s argument? Explain.

Pluralists

1. How does Empedocles deal with the problem of change? (Be sure to make clear his position on generation and destruction, motion, and qualitative change.)

2. All the Presocratic philosophers after Parmenides found the concept of change problematic. What is the problem? How does Empedocles deal with it? (Be sure to make clear his position on generation and destruction, motion, and qualitative change.)

3. Compare and contrast the ways in which Democritus and Leucippus, on the one hand, and Empedocles and Anaxagoras, on the other, tried to reconcile Parmenideanism with common sense.

4. What are the central propositions in Anaxagoras’s theory of matter? What reasons are there for thinking that the theory is logically inconsistent? How might one attempt to defend Anaxagoras against the charge of inconsistency?

5. In what sense are Democritus’s atoms “indivisible”? Present and discuss Furley’s interpretation (“The Atomists’ Reply to the Eleatics,” e-reserve) of Democritean indivisibility.
6. Compare Democritus’ conception of matter and space with the conception that seems to have been shared by Empedocles and Anaxagoras. How are their differences on this point reflected in their responses to Parmenides?