

Exercises for Introduction

Read the entire chapter. You may read it fairly quickly on this first reading. Don't expect to understand everything you read. Try only to get a general idea of what the chapter is about. Next, read the beginning sections. Read the sections again carefully and try to fully understand them. **Do each part on a different day. This will reinforce the concepts.**

Part 1

1. Based on what you read in this chapter, what is the definition of logic?
2. Give the names of the two main branches of logic.
3. Explain the first of the main branches of logic and describe it in your own words.
4. Explain the second of the main branches of logic, and describe it in your own words.
5. Indicate whether the following statements are true or false:
 - a. T F The purpose of formal logic is to discover truth.
 - b. T F It is necessary to have logic in order to discover truth.
 - c. T F Logic leads us from one truth to another.
 - d. T F A statement can be truth or false.
 - e. T F A statement can be valid or invalid.
 - f. T F An argument can be true or false.
 - g. T F An argument can be valid or invalid.
 - h. T F Truth is only of secondary consideration in formal logic.

Part 2

6. On the basis of today's reading, define **truth**.
7. On the basis of today's reading, explain what it means to say an argument is **valid**.
8. On the basis of today's reading, define **soundness**.
9. Indicate whether the following statements are true or false.
10. Indicate whether the following statements are true or false:
 - a. T F An argument can contain true premises and be invalid.
 - b. T F An argument can be sound and contain false premises.
 - c. T F A sound argument must be valid.
 - d. T F A valid argument must be sound.
 - e. T F An argument with true premises can be unsound.
 - f. T F An argument can contain only one premise.
11. In the following argument, identify the premises and the conclusion by writing the words **premise** or **conclusion** next to the statement.

All men are mortal
Socrates is a man
Therefore, Socrates is mortal

12. Name the three types of logical processes (or acts of the mind) involved in logic.

13. Each of these logical processes or mental acts (in the previous question) originates in a _____ and manifests itself in the form of a _____.

Part 3

14. What is the mental act involved in the first of the three kinds of logical processes?
15. What is the verbal expression connected to this mental act?
16. What occurs in our minds when we have a simple apprehension?
17. If you think of this book and have the concept in your mind, you are having a simple apprehension. What is the term you use to verbally express this particular simple apprehension?
18. Name the terms included in the argument in question 11 above.
19. What does each one of these terms represent?
20. What is the mental act involved in the second of the three kinds of logical process?
21. What is the verbal expression connected to this mental act (regarding the previous question.)
22. What occurs in our minds when we perform a judgment?
23. If you think that this book is boring by affirming in your mind that this is so, your mind is performing a judgment. What is the term you use to verbally express this judgment?

Part 4

24. What is the mental act involved in the third of the three kinds of logical processes?
25. What is the verbal expression connected to this mental act (in the previous question)?
26. Describe in no less than one and no more than three sentences what occurs in our minds when we engage in deductive inference?
27. If you think that because all books are boring and that this is a book, and that therefore this book is boring your mind engaged in deductive inference. What is the term you use to verbally express this deductive inference?