**Exercises for Reading 8**

­­­­­**\_\_\_\_\_ Exercises for Section I • Peruse the entire chapter. Pay particular attention to the summary. Then read the introductory section at the very beginning of chapter 12. Read this section carefully and try to understand it as best you can.**

1. What are we discussing in this chapter?

2. Write out all seven rules for the validity of categorical syllogisms.

3. How many of these rules does a syllogism have to comply with in order to be considered to be valid?

4. Which two of these rules do we discuss in this chapter?

5. Why are these ***quantitative rules***?

6. With what does a statement's quantity have to do?

7. What are the three terms contained in a syllogism? [Review]

8. Explain how to distinguish major, minor and middle terms. [Review]

9. In a syllogism, which premise is the major premise? [Review]

10. In a syllogism, which premise is the minor premise? [Review]

**Read "Rule III: If a Term is Not Distributed in the Premises, Then It Must Not Be Distributed in the Conclusion."**

11. What is Rule III?

12. What does this rule prevent us from trying to do?

13. What is the definition of distribution?

14. With what does extension have to do?

15. When we say that a term is distributed, what do we mean?

16. When we say that a term is undistributed, what do we mean?

17. In marking a syllogism, how do you show that a term is distributed?

18. How do you show that a term is undistributed?

\_\_\_\_ Exercises for Section 2.

19. Fill in the following diagram showing which terms are distributed and which undistributed in different kinds of categorical statements:

**DIAGRAM OF THE DISTRIBUTION OF**

**TERMS IN A, I, E, ANDO STATEMENTS**

Type of sentence Subject-Term Predicate-Term Categorical Statements

A ­­­­­\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

I \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

E \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

0 \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

20. Mark the following syllogisms indicating the minor, major and middle terms (using S, P and M, respectively) as in the text. Indicate whether the term is distributed or undistributed by writing a lower case ***d*** next to the letter that indicates the distributed term (S, P, or M), and a lower case ***u*** next to the letter that indicates the undistributed term. (Note that negative statements in which the subject-term is a proper noun are E statements. For example, "Jeff is not rude" is "No S is P," an E statement).

Example:

All menMd are mortalPu. All kings\_\_ are good \_\_

SocratesSd is a manMu. Hussein\_\_ is a king\_\_

Therefore SocratesSd is mortalPu Therefore, Hussein\_\_ is good\_\_

All boy\_\_ are human\_\_ No organisms\_\_ is simple\_\_

Nathaniel\_\_ is a boy\_\_ Cats\_\_ are organisms\_\_

Therefore, Nathaniel\_\_ is human\_\_ Therefore, Cats\_\_ are not simple\_\_

No boys\_\_ are rude\_\_ All Romans\_\_ are brave\_\_

Jeff\_\_ is a boy\_\_. Caesar\_\_ is Roman\_\_

Therefore, Jeff\_\_ is not rude\_\_ . Therefore, Caesar\_\_ is brave\_\_

All cars\_\_ are fast\_\_ All generals\_\_ are great\_\_

A Corvette is a car\_\_ Hannibal\_\_ is a general\_\_

Therefore, a Corvette\_\_ is fast\_\_ Therefore, Hannibal\_\_ is great\_\_

All horses\_\_ are strong\_\_ No wars\_\_ are fun\_\_

Patches\_\_ is a horse\_\_ World War II\_\_ was a war\_\_

Therefore, Patches\_\_ is strong\_\_ Therefore, WWII\_\_ was no fun\_\_

21. Syllogisms that violate Rule III are said to commit what fallacy?

22. In what two ways can this fallacy be committed?

23. Explain the Fallacy of Illicit Major.

24. Explain the Fallacy of Illicit Minor.

25. **Make bold** the Rule that is violated in the following syllogisms. Indicate minor, major and middle terms (S, P and M) and whether the terms are distributed or undistributed (d and u) to help determine if Rule III is violated. If Rule III is violated, indicate which fallacy is committed, Illicit Major (IMj) or Illicit Minor (IMn). If no fallacy is committed, then do not mark.

Example:

All boysMd are humanPu All towns\_\_ are safe\_\_

No girlsSd are boysMd Jerusalem\_\_ has high walls\_\_

Therefore, no girlsSd are humanPd  Therefore, Jerusalem\_\_ is safe\_\_

■ Rule I ■ Rule II ■ Rule I ■ Rule II

■ Rule III ■ IMn **■ IMj** ■ Rule III ■ IMn ■ IMj

All victories\_\_ are glorious\_\_ All Gorgons\_\_ have snakey hair\_\_

No defeat\_\_ is a victory\_\_ All Gorgons\_\_ are sisters\_\_

Therefore, no defeat\_\_ is glorious\_\_ Therefore, all sisters have snakey hair\_\_

■ Rule I ■ Rule II ■ Rule I ■ Rule II

■ Rule III ■ IMn ■ IMj ■ Rule III ■ IMn ■ IMj

All men\_\_ are animals\_\_ All Southerners\_\_ eat grits\_\_

All men\_\_ are motral\_\_ No Yankee\_\_ is a Southerner\_\_

Therefore, all mortals\_\_ are animals\_\_ Therefore, no Yankee\_\_ eats grits\_\_

■ Rule I ■ Rule II ■ Rule I ■ Rule II

■ Rule III ■ IMn ■ IMj ■ Rule III ■ IMn ■ IMj

No boys\_\_ are cowards\_\_ All Romans\_\_ are brave\_\_

All Latin students\_\_ are boys\_\_ No Gaul\_\_ is a Roman\_\_

Therefore, no Latin students\_\_ are cowards\_\_ Therefore, no Gaul\_\_ is brave\_\_

■ Rule I ■ Rule II ■ Rule I ■ Rule II

■ Rule III ■ IMn ■ IMj ■ Rule III ■ IMn ■ IMj

All cars\_\_ are fast\_\_ All generals\_\_ are great\_\_

My car\_\_ is a Corvette\_\_ All generals\_\_ are brave men\_\_

Therefore, my car\_\_ is fast\_\_ Therefore, all brave men\_\_ are great\_\_

■ Rule I ■ Rule II ■ Rule I ■ Rule II

■ Rule III ■ IMn ■ IMj ■ Rule III ■ IMn ■ IMj

All girls\_\_ eat cookies\_\_ All wars\_\_ are cruel\_\_

All girl scouts\_\_ sell cookies\_\_ No sports games\_\_ are wars\_\_

Therefore, all girls\_\_ are girl scouts\_\_ Therefore, no sports games\_\_ are cruel\_\_

■ Rule I ■ Rule II ■ Rule I ■ Rule II

■ Rule III ■ IMn ■ IMj ■ Rule III ■ IMn ■ IMj

**\_\_\_\_\_Exercises for Section 3. Read “Rule IV: The Middle Term Must be Distrbuted at Least Once.”**

26. Explain Rule IV.

27. Syllogisms that violate Rule IV are said to commit what fallacy?

28. Explain the fallacy referred to in Question 27.

29. Indicate which Rule is violated in the following syllogisms. Indicate minor, major, and middle terms (S, P, and M) and whether the terms are distributed or undistributed (d and u) to help determine which rules are violated. If Rule III is violated, indicate which fallacy is committed, Illicit Major (IMj) or Illicit Minor (IMn). If Rule IV is violated, indicate that it has committed the Fallacy of Undistributed Middle (FUM). If no fallacy is committed, then do not mark:

All Gorgons\_\_ have snakey hair\_\_ All towns\_\_ are safe\_\_

Medusa\_\_ has snakey hair\_\_ Jerusalem\_\_ is a town\_\_

Therefore, Medusa\_\_ is a Gogon\_\_ Therefore, Jerusalem\_\_ is safe\_\_

■ Rule I ■ Rule II ■ Rule I ■ Rule II

■ Rule III ■ IMn ■ IMj ■ Rule III ■ IMn ■ IMj

■ Rule IV: ■ FUM ■ Rule IV: ■ FUM

No defeat\_\_ is glorious\_\_ All queens\_\_ are good\_\_

All victories\_\_ are glorious\_\_ All kings\_\_ are good\_\_

Therefore, no victory\_\_ is defeat\_\_ Therefore, all kings\_\_ are queens\_\_

■ Rule I ■ Rule II ■ Rule I ■ Rule II

■ Rule III ■ IMn ■ IMj ■ Rule III ■ IMn ■ IMj

■ Rule IV: ■ FUM ■ Rule IV: ■ FUM

All princes—are handsome\_\_ All opera stars\_\_ sing songs\_\_

Some toads\_\_ are not princes\_\_ No sirens\_\_ are opera stars\_\_

Therefore, some toads\_\_ are not handsome\_\_ Therefore, no sirens\_\_ sing songs\_\_

■ Rule I ■ Rule II ■ Rule I ■ Rule II

■ Rule III ■ IMn ■ IMj ■ Rule III ■ IMn ■ IMj

■ Rule IV: ■ FUM ■ Rule IV: ■ FUM

All heroes\_\_ are patriots\_\_ Some dull things\_\_ are valuable\_\_

Charles Lindbergh\_\_ is a hero\_\_ All homework\_\_ is dull\_\_

Therefore, Charles Lindbergh\_\_ is a patriot\_\_ Therefore, some homework\_\_ is valuable\_\_

■ Rule I ■ Rule II ■ Rule I ■ Rule II

■ Rule III ■ IMn ■ IMj ■ Rule III ■ IMn ■ IMj

■ Rule IV: ■ FUM ■ Rule IV: ■ FUM

Some merry men\_\_\_live in Sherwood Forest\_\_\_ Some great generals\_\_ defeated Rome\_\_

All archers\_\_ are merry men\_\_ Hannibal\_\_ was a great general\_\_

Therefore, some archers\_\_\_live in Sherwood\_\_\_ Therefore, Hannibal\_\_ defeated Rome\_\_

■ Rule I ■ Rule II ■ Rule I ■ Rule II

■ Rule III ■ IMn ■ IMj ■ Rule III ■ IMn ■ IMj

■ Rule IV: ■ FUM ■ Rule IV: ■ FUM

All Merry Men\_\_ are archers\_\_ All toads\_\_ are ugly\_\_

Robin Hood\_\_ is an archer\_\_ No princes\_\_ are toads\_\_

Therefore, Robin Hood\_\_\_is a merry man\_\_\_ Therefore, no princes\_\_ are ugly\_\_

■ Rule I ■ Rule II ■ Rule I ■ Rule II

■ Rule III ■ IMn ■ IMj ■ Rule III ■ IMn ■ IMj

■ Rule IV: ■ FUM ■ Rule IV: ■ FUM

**\_\_\_\_\_Exercises for summary. Read “Summary.” Read it carefully.**

30. Indicate which Rule is violated in the following syllogisms. Indicate minor, major, and middle terms (S, P, and M) and whether the terms are distributed or undistributed (d and u) to help determine which rules are violated. If Rule III is violated, indicate which fallacy is committed, Illicit Major (IMj) or Illicit Minor (IMn). If Rule IV is violeted mark ‘FUN’ (Fallacy of Undistributed Middle). If no fallacy is committed, then simply mark it valid.

Some green men\_\_ are leprechauns\_\_ All towns\_\_ are safe\_\_

Some green men\_\_ are Martians\_\_ Jerusalem\_\_ is a holy city\_\_

Therefore, some Martians\_\_ are leprechauns\_\_ Therefore, some holy cities\_\_ are safe\_\_

■ Rule I ■ Rule II ■ Rule I ■ Rule II

■ Rule III ■ IMn ■ IMj ■ Rule III ■ IMn ■ IMj

■ Rule IV: ■ FUM ■ Rule IV: ■ FUM

All leopards\_\_ are felines\_\_ Some rodents\_\_ are a threat\_\_

All lions\_\_ are felines\_\_ All mice\_\_ are rodents\_\_

Therefore, some lions\_\_ are leopards\_\_ Therefore, no mice\_\_ are a threat\_\_

■ Rule I ■ Rule II ■ Rule I ■ Rule II

■ Rule III ■ IMn ■ IMj ■ Rule III ■ IMn ■ IMj

■ Rule IV: ■ FUM ■ Rule IV: ■ FUM

All oaks\_\_ are trees\_\_ All kings\_\_ are good\_\_

No maples\_\_ are oaks\_\_ All kings\_\_ are rich\_\_

Therefore, no maples\_\_ are trees\_\_ Therefore, al rich people\_\_ are good\_\_

■ Rule I ■ Rule II ■ Rule I ■ Rule II

■ Rule III ■ IMn ■ IMj ■ Rule III ■ IMn ■ IMj

■ Rule IV: ■ FUM ■ Rule IV: ■ FUM

No irrational thing\_\_ is a man\_\_ No ducks\_\_ are birds\_\_

All beasts\_\_ are irrational\_\_ All birds\_\_ have feathers\_\_

Therefore, no beast\_\_ is a man\_\_ Therefore, some birds\_\_ are not ducks\_\_

■ Rule I ■ Rule II ■ Rule I ■ Rule II

■ Rule III ■ IMn ■ IMj ■ Rule III ■ IMn ■ IMj

■ Rule IV: ■ FUM ■ Rule IV: ■ FUM

31. Tell whether the following are true or false: (Make the correct answer **bold**.)

T F If a term is distributed in the conclusion, it must be distributed in the premises.

T F The subject-term of an E statement is distributed.

T F Syllogisms that violate Rule IV are said to commit the Fallacy of Illicit Process.

T F The Fallacy of Illicit Major is committed when the major term is distributed in the conclusion, but not in the premises.

T F If the middle-term is not distributed in either of the premises, then the syllogism is invalid.

T F The Fallacy of Undistributed Middle is committed when the middle term is distributed in the premises but not in the conclusion.