Exercises for Reading 9 KEY

_____ Exercises, Part I • Peruse the entire chapter. Read the introductory section at the very beginning of the chapter. Read this section carefully and try to understand it as best you can.

1. What are we discussing in this chapter?
The qualitative rules
2. Describe each of the seven rules for the validity of syllogisms. [Review]
1.There must be three and only three terms.
2. The middle term must not occur in the conclusion
3. If a term is distributed in the conclusion, then it must be distributed in the premises.
4. The middle term must be distributed at least once.
5. No conclusion can follow from two negative premises.
6. If the two premises are affirmative, the conclusion must also be affirmative.
7. If either premise is negative, the conclusion must be negative.

3. How many of these rules does a syllogism have to comply with in order to be considered valid? [review]
All seven of them.
4. Which three of these rules do we discuss in this chapter?
Rule V: No conclusion can follow from two negative premises.
Rule VI: If the two premises are affirmative, the conclusion must also be affirmative.
Rule VII: If either premise is negative, the conclusion must be negative.

5. Why are these rules called *qualitative* rules?
Because they have to do with the quality of the statements in a syllogism.
6. With what does a statement's quality have to do?
It has to do with whether it is affirmative or negative.

7. What are the three terms contained in a syllogism? [Review]
Major, minor, and middle

8. Explain how to distinguish the major, minor and middle terms. [Review]
The major term is the predicate of the conclusion.
The minor term is the subject of the conclusion.
The middle term appears in both premises, but not in the conclusion.

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

The minor premise is the premise that contains the minor term. In standard form it is the second premise.

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

The major premise contains the major term. In standard form, it is the first premise.

11. Fill in the following diagram showing which terms are distributed and which undistributed in different kinds of categorical statements, by writing distributed or undistributed in the blanks:

DIAGRAM OF THE DISTRIBUTION OF
TERMS IN A, I, E, AND O STATEMENTS

Type of sentence	Subject-Term	Predicate-Term	Categorical Statements
A	Distributed	Undistributed	All S are P
I	Undistributed	Undistributed	Some S are P
E	Distributed	Distributed	No S are P
0	Undistributed	Distributed	Some S are not P

_____ Exercises, Part 2. Read "Rule V: No Conclusion Can Follow from Two Negative Premises."

12. What is Rule V?

No Conclusion Can Follow from Two Negative Premises.

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

This rule prevents us from trying to say more in the conclusion that is contained in the premises. When we have two negative premises, we cannot establish a connection between the major and minor term.

14. Syllogisms that violate Rule V are said to commit what fallacy?

Fallacy of Exclusive Premises

15. 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 if Rule V is violated. If no fallacy is committed, then simply mark it valid:

No saints^{PD} are villians^{MD}
Some robbers^{SU} are not villians^{MD}
Therefore, some robbers^{SU} are saints^{PU}
- ■ Rule I   ■ Rule II
- ■ Rule III   ■ Rule IV   ■ **Rule V**

Some vegetables^{MU} are not sweet^{PD}
No vegetable^{MD} is a fruit^{SD}
Therefore, some fruits^{SU} are not sweet^{PD}
- ■ Rule I   ■ Rule II
- ■ Rule III   ■ Rule IV   ■ **V**

All floods^{MD} are devastating^{PU}
No drought^{SD} is a flood^{MD}
Therefore, no drought^{SD} is devastating^{PD}
- ■ Rule I   ■ Rule II
- ■ **Rule III** ■ Rule IV   ■ Rule V

All symphonies^{MD} are beautiful^{PU}
No opera^{SD} is a symphony^{MD}
Therefore, no opera^{SD} is beautiful^{PD}
- ■ Rule I   ■ Rule II
- ■ **Rule III** ■ Rule IV   ■ V

All Protestants^{PD} believe the trinity^{MU}
All Catholics^{SD} believe the trinity^{MU}
Therefore, some Catholics^{SU} are Protestants^{PU}
- ■ Rule I   ■ Rule II
- ■ Rule III   ■ **Rule IV**   ■ Rule V

No maples^{PD} are pines^{MD}
No oaks^{SD} are pines^{MD}
Therefore, no oaks^{SD} are maples^{PD}
- ■ Rule I   ■ Rule II
- ■ Rule III   ■ Rule IV   ■ **V**

No Greeks^{PD} are Romans^{MD}
Some soldiers^{SU} are not Romans^{MD}
Therefore, some soldiers^{SU} are not Greeks^{PD}
- ■ Rule I   ■ Rule II
- ■ Rule III   ■ Rule IV   ■ **Rule V**

No man^{MD} is as wise as Solomon^{PD}
Einstein^{SD} is a man^{MU}
Therefore, Einstein^{SD} is not as wise as Solomon^{PD}
- ■ Rule I   ■ Rule II   **Valid**
- ■ Rule III   ■ Rule IV   ■ V

No tornadoes^{MD} are pleasant^{PD}
Some violent storms^{SU} are tornadoes^{MU}
Therefore, no violent storms^{SD} are pleasant^{PD}
- ■ Rule I   ■ Rule II
- ■ **Rule III** ■ Rule IV   ■ Rule V

Some merry men^{MU} are not in Sherwood Forest^{PD}
No sheriff^{SD} is a merry man^{MD}
Therefore, no sheriff^{SD} is in Sherwood Forest^{PD}
- ■ Rule I   ■ Rule II
- ■ Rule III   ■ Rule IV   ■ **V**

_____ Exercises Part 3. Read the section titled, "Rule VI: If the Two Premises are Affirmative the Conclusion Must Also be Affirmative."

16. Explain Rule VI.

   We cannot logically derive a negative conclusion from two affirmative premises.

17. Syllogisms that violate Rule VI are said to commit what fallacy?

   Fallacy of Drawing a Negative Conclusion from Affirmative Premises.

18. Indicate which of the six rules 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 no fallacy is committed, then simply mark it valid:

All mermaids^{MD} can swim^{PU}
Some nymphs^{SU} are mermaids^{MU}
Therefore, some nymphs^{SU} are not swimmers^{PD}
■ Rule I   ■ Rule II
■ **Rule III**   ■ Rule IV   ■ Rule V
■ **Rule VI**   ■ Valid

All teeth^{MD} are white^{PU}
A molar^{SD} is a tooth^{MU}
Therefore, a molar^{SD} is white^{PU}
■ Rule I   ■ Rule II
■ Rule III   ■ Rule IV   ■ V
■ Rule VI   ■ **Valid**

Remember the relationship between groups and individuals. Teeth is distributed in the first premise. A molar is a *particular* tooth. It's like men and Socrates. That's why the second premise is an A claim.

All revolutions^{PD} are bloody^{MU}
No election^{SD} is bloody^{MD}
Therefore, no election^{SD} is a revolution^{PD}
■ Rule I   ■ Rule II
■ Rule III   ■ Rule IV   ■ Rule V
■ Rule VI   ■ **Valid**

All jesters^{PD} are clowns^{MU}
All clowns^{MD} are funny^{SU}
Therefore, some funny people^{SU} are not jesters^{PD}
■ Rule I   ■ Rule II
■ Rule III   ■ Rule IV   ■ V
■ **Rule VI**   ■ Valid

All archers^{PD} are foresters^{MU}
All foresters^{MD} are merry men^{SU}
Therefore, some merry men^{SU} aren't archers^{PD}
■ Rule I   ■ Rule II
■ Rule III   ■ Rule IV   ■ Rule V
■ **Rule VI**   ■ Valid

All military leaders^{PD} are male^{MU}
Joan of Arc^{SD} is not a male^{MD}
Therefore, Joan of Arc^{SD} is not a military leader^{PD}
■ Rule I   ■ Rule II
■ Rule III   ■ Rule IV   ■ V
■ Rule VI   ■ **Valid**

Remember that individuals are always taken universally. So, Joan of Arc is taken universally. Hence, the claim will be an E claim.

No boys^{MD} are rude^{PD}
No girls^{SD} are boys^{MD}
Therefore, no girls^{SD} are rude^{PD}
■ Rule I   ■ Rule II
■ Rule III   ■ Rule IV   ■ **Rule V**
■ Rule VI   ■ Valid

All Romans^{MD} are brave^{PU}
Some Gauls^{SU} are not Romans^{MD}
Therefore, some Gauls^{SU} are not brave^{PD}
■ Rule I   ■ Rule II
■ **Rule III**   ■ Rule IV   ■ V
■ Rule VI   ■ Valid

All queens^{MD} are regal^{PU}
Elizabeth^{SD} is a queen^{MU}
Therefore, Elizabeth^{SD} is regal^{PU}

All moons^{MD} are spherical^{PU}
All moons^{MD} revolve^{SU}
Therefore, all things that revolve^{SD} are spherical^{PU}

- ■ Rule I   ■ Rule II
- ■ Rule III   ■ Rule IV   ■ Rule V
- ■ Rule VI   **■ Valid**

- ■ Rule I   ■ Rule II
- **■ Rule III**   ■ Rule IV   ■ V
- ■ Rule VI   ■ Valid

All oaks^{PD} are trees^{MU}
All trees^{MD} are alive^{SU}
Therefore, some living things^{SU} are not oaks^{PD}
- ■ Rule I   ■ Rule II
- ■ Rule III   ■ Rule IV   ■ Rule V
- **■ Rule VI**   ■ Valid

All beagles^{PD} are dogs^{MU}
All dogs^{MD} are loyal^{SU}
Therefore, some loyal things^{SU} aren't beagles^{PD}
- ■ Rule I   ■ Rule II
- ■ Rule III   ■ Rule IV   ■ V
- **■ Rule VI**   ■ Valid

At first this one looks like the fallacy of four terms. But on closer inspection, one realizes that "alive" and "living things" are two terms for the same thing.

_____**Exercises Part 4. Read "Rule VII: If Either Premise is Negative, the Conclusion Must be Negative."**

19. 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 no fallacy is committed, then simply mark it valid.

Some fairies^{PU} are not leprechauns^{MD}
All leprechauns^{MD} are green men^{SU}
Therefore, some green men^{SU} are fairies^{PU}
- ■ Rule I   ■ Rule II
- ■ Rule III   ■ Rule IV   ■ Rule V
- ■ Rule VI   **■ Rule VII**   ■ Valid

All teeth^{MD} are white^{PU}
All teeth^{MD} are molars^{SU}
Therefore, some molars^{SU} are white^{PU}
- ■ Rule I   ■ Rule II
- ■ Rule III   ■ Rule IV   ■ V
- ■ Rule VI   ■ Rule VII   **■ Valid**

No revolutions^{PD} are bloody^{MD}
All elections^{SD} are bloody^{MU}
Therefore, no election^{SD} is a revolution^{PD}
- ■ Rule I   ■ Rule II
- ■ Rule III   ■ Rule IV   ■ Rule V
- ■ Rule VI   ■ Rule VII   **■ Valid**

No oaks^{MD} are pines^{PD}
Some trees^{SU} are oaks^{MU}
Therefore, some trees^{SU} are pines^{PU}
- ■ Rule I   ■ Rule II
- ■ Rule III   ■ Rule IV   ■ V
- ■ Rule VI   **■ Rule VII**   ■ Valid

No noble thing^{PD} is revered^{MD}
All heroes^{SD} are revered^{MU}
Therefore, no hero^{SD} is a noble thing^{PD}
- ■ Rule I   ■ Rule II
- ■ Rule III   ■ Rule IV   ■ Rule V

No hawks^{MD} are warblers^{PD}
Some birds^{SU} are hawks^{MU}
Therefore, some birds^{SU} are warblers^{PU}
- ■ Rule I   ■ Rule II
- ■ Rule III   ■ Rule IV   ■ V

■ Rule VI   ■ Rule VII   ■ **Valid**   ■ Rule VI   ■ **Rule VII**   ■ Valid

20. Tell whether the following are true or false.

T	**F**	If there are more than three terms in a syllogism, then the syllogism violates Rule III.
T	**F**	If a syllogism has at least one affirmative premise, the conclusion must be affirmative.
T	F	The Fallacy of Illicit Minor occurs when the minor term is distributed in the conclusion but not in the premises.
T	F	The middle term must be distributed at least once.
T	F	No conclusion can follow from two negative premises.
T	**F**	The minor term must be universal in both the conclusion and the premises.