

Exercises for Reading 2.03

_____ Exercises - Part I. Peruse entire reading. Then read the introductory section at the very beginning. Read this section carefully and try to understand it as best you can.

1. What are we discussing in this reading?

How to reduce other kinds of syllogisms to the First Figure.

3. How many figures are there? [Review]

Four

4. Why would logicians want to transform syllogisms in the other three figures to syllogisms in the First Figure?

It makes it easier to see the validity.

Extra material to clarify. READ CAREFULLY.

Syllogisms in the second, third, and the indirect first (fourth) figure are sometimes awkward, and their demonstrative force is generally not as great as that of syllogisms in the first figure. In the first figure, looked at from the point of view of *comprehension*, P is always placed in or denied to the meaning of M, and M is always placed in the meaning of S; so it is perfectly clear why P must be placed in, or denied to, the meaning of S.

From the standpoint of *extension*, the first figure is even more ideal, for the middle term serves perfectly its role of *intermediate*, being of *lesser* extension than the major term, P, (M is P) and of *greater* extension than the minor term, S (S is M). Most importantly, in the first figure the *Dictum de Omni* or the *Dictum de Nullo* is perfectly verified. A predicate (P) which pertains universally to a certain nature (M), pertains to everything (S) that comes under that nature; or a predicate (P) which is denied universally to a certain nature (M), is denied to everything (S) that comes under that nature. Although each of the other figures is perfectly valid in its own right, and although the second and third figures are specially suited to certain types of argument, they do not permit as immediate an application of the two supreme principles of the syllogism as does the first figure.

Read section titled, "Two Methods of Reduction." Read it carefully.

5. What are the two methods of reduction?

Direct and Indirect

6. Which of these two methods of reduction are we studying in this reading?

Direct

Read: Section titled, "The Nineteen Valid Moods." Read it carefully.

7. Give the names for the nineteen valid syllogisms as given by William of Shyreswood. [Review]

**BARBARA, CELARENT, DARII, FERIOque prioris;
CESARE, CAMESTRES, FESTINO, BAROCO secundae;
Tertia; DARAPTI, DISAMIS, DATISI, FELAPTON, BOCARDO, FERISON habet;
quarta insuper addit; BRAMANTIP, CAMENES, DIMARIS, FESAPO, FRESISON.**

8. Give the names of the valid moods in the First Figure. [Review]

BARBARA, CELARENT, DARII, FERIO

9. Give the names of the valid moods in the Second Figure. [Review]

CESARE, CAMESTRES, FESTINO, BAROCO

10. Give the names of the valid moods in the Third Figure. [Review]

DARAPTI, DISAMIS, DATISI, FELAPTON, BOCARDO, FERISON

11. Give the names of the valid moods in the Fourth Figure. [Review]

BRAMANTIP, CAMENES, DIMARIS, FESAPO, FRESISON

12. What do the vowels in these names indicate? [Review]

The mood of the syllogism. The first vowel is the major premise, the second vowel is the minor premise, and the third vowel is the conclusion.

_____ Exercises – Part 2. Read the section titled, "What the Consonants Mean." Read the entire section carefully.

13. Write out the 19 valid syllogisms as they are presented in the text. [Review]

**BARBARA, CELARENT, DARII, FERIOque prioris;
CESARE, CAMESTRES, FESTINO, BAROCO secundae;
Tertia; DARAPTI, DISAMIS, DATISI, FELAPTON, BOCARDO, FERISON habet;
quarta insuper addit; BRAMANTIP, CAMENES, DIMARIS, FESAPO, FRESISON.**

14. What does the first letter in each of these names indicate?

The mood in the FIRST FIGURE

15. To which syllogism in the First Figure does FESTINO reduce?

FERIO

16. To which syllogism in the First Figure does DARAPTI reduce?

DARII

17 To which syllogism in the First Figure does CAMENES reduce?

CELERENT

18. To which syllogism in the First Figure does FERISON reduce?

FERIO

Read: Section titled "The Four Operations for Reduction." Read it carefully.

19. Explain what the consonants S, P, M, and C indicate when they are found after the initial letter in syllogism names?

S: Simple conversion of the proposition signified by the preceding vowel;

P: Per accidens, or partial conversion of the proposition signified by the preceding vowel;

M: Mutatio, or transposition of the premises; make the minor premise the major and the major the minor.

C: Reduction by contradiction. This is the indirect method of reduction through (rather than to) BARBARA. It is signified by a noninitial **c** and is applied only to BAROCO and BOCARDO.

_____ Exercises – Part 3. Review section titled "The Four Operations for Reduction."

Reduce the following syllogisms to the First Figure by following the procedure indicated:

20. No philosophers are saints
Some men are saints
Therefore, some men are not philosophers

What figure is this syllogism in? (1st, 2nd, 3rd or 4th) 2nd

What mood is it in? (Write the name of the syllogism) EIO (FESTINO)

Which consonant (or consonants) tells you how to reduce to the First Figure? S

What does it indicate you should do? Simple conversion of the first premise

Write the syllogism after it has been reduced to the First Figure.

No saints are philosophers

Some men are saints

Therefore, some men are not philosophers

What mood is this syllogism now in? (give the name) FERIO

21. No saints are philosophers
Some saints are wise
Therefore, some wise people are not philosophers

What figure is this syllogism in? (1st, 2nd, 3rd, or 4th) 3rd

What mood is it in? (write the name of the syllogism) FERISON

Which consonant (or consonants) tells you how to reduce to the First Figure? **S**

What does it indicate you should do?

Simple conversion of the minor premise.

Write the syllogism after it has been reduced to the First Figure.

No saints are philosophers

Some wise men are saints

Therefore, some wise men are not philosophers.

What mood is this syllogism now in? (give the name) **FERIO**

22. Some saints are philosophers
 All philosophers are men
 Therefore, some men are saints

What figure is this syllogism in? (1st, 2nd, 3rd or 4th) **4th**

What mood is it in? (write the name of the syllogism) **DIMARIS**

Which consonant (or consonants) tells you how to reduce to the First Figure? **M S**

What does it indicate you should do?

1. Transpose the premises

2. Simple conversion of the conclusion.

Write the syllogism after it has been reduced to the First Figure.

All philosophers are men

Some saints are philosophers

Therefore, some saints are men

What mood is this syllogism now in? (give the name) **DARII**

23. No angels are men
 All philosophers are men
 Therefore, No philosophers are angels

What figure is this syllogism in? (1st, 2nd, 3rd or 4th) **2nd**

What mood is it in? (write the name of the syllogism) **CESARE**

Which consonant (or consonants) tells you how to reduce to the First Figure? What does it indicate that you should do? **S, Simple conversion of the major premise.**

Write the syllogism after it has been reduced to the First Figure.

No men are angels

All philosophers are men

Therefore, no philosophers are angels

What mood is this syllogism now in? (give the name) **CELARENT**

24. Some men are wise
All men are philosophers
Therefore, Some philosophers are wise

What figure is this syllogism in? (1st, 2nd, 3rd or 4th) **3rd**

What mood is it in? (write the name of the syllogism) **DISAMIS**

Which consonant (or consonants) tells you how to reduce to the First Figure? **S M S**

What does it indicate you should do?

1. Simple conversion of the major premise.
2. Transpose the premises
3. Simple conversion of the conclusion.

Write the syllogism after it has been reduced to the First Figure.

All men are philosophers
Some wise people are men
Therefore, some wise people are philosophers

What mood is this syllogism now in? (give the name) **DARII**

25. All saints are holy
All saints are wise
Therefore, some wise men are holy.

What figure is this syllogism in? (1st, 2nd, 3rd, or 4th) **3rd**

What mood is it in? (write the name of the syllogism) **DARAPTI**

Which consonant (or consonants) tells you how to reduce to the First Figure? **P**

What does it indicate you should do?

Partial conversion of the minor premise.

Write the syllogism after it has been reduced to the First Figure.

All saints are holy
Some wise people are saints.
Therefore, some wise men are holy.

What mood is this syllogism now in? (give the name) **DARII**

26. No angels are men
Some men are philosophers
Therefore, some philosophers are not angels

What figure is this syllogism in? (1st, 2nd, 3rd or 4th) **4th**

What mood is it in? (write the name of the syllogism) **FRESISON**

Which consonant (or consonants) tells you how to reduce to the First Figure? What does it indicate you should do? **S S, Simple conversion of the major premise and also the minor premise.**

Write the syllogism after it has been reduced to the First Figure.

No men are angels

Some philosophers are men

Therefore, some philosophers are not angels

What mood is this syllogism now in? (give the name) **FERIO**

____ Exercises – Part 4.

Reduce the following syllogisms to the First Figure, indicating the name of the First Figure syllogism it has been converted into (use the format for Day 3 exercises if necessary):

27. All men mortals
Some men are Romans
Therefore, some Romans are mortals

All men mortals

Some Romans are men

Therefore, some Romans are mortals

From DATISI to DARI

28. No angels are men
All men are mortal
Therefore, some mortals are not angels

No men are angels

Some mortals are men

Therefore, some mortals are not angels

FESAPO to FERIO

29. Some mortals are men
All men are sinners
Therefore, some sinners are mortal

All men are sinners

Some mortals are men
Therefore, some mortals are sinners

DIMARIS to DARII

30. All Romans are men
No god is a man
Therefore, no god is a Roman

No man is a god
All Romans are men
Therefore, no Roman is a god

CAMESTRES to CELARENT

31. Some men are Romans
All men are mortal
Therefore, some mortals are Romans

All men are mortal
Some Romans are men
Therefore, some Romans are mortal

DISAMIS to DARII

32. No men are gods
All men are mortal
Therefore, some mortals are not gods

No men are gods
Some mortals are men
Therefore, some mortals are not gods

FELAPTON to FERIO

33. All Romans are men
No men are gods
Therefore, no gods are Romans

No men are gods

All Romans are men
Therefore, no Romans are gods

CAMENES to CELARENT

34. Tell whether the following are true or false:

- T** **F** There are four operations by which syllogisms can be reduced to the First Figure.
- T** **F** The consonants S, P M and C, when found in the body of the name of a syllogism, indicate which figure the syllogism is in.
- T** **F** The consonant S indicates Simple Conversion of the proposition signified by the preceding vowel.
- T** **F** M indicates one of the methods of Direct Reduction.
- T** **F** C indicates one of the methods of Indirect Reduction.
- T** **F** M indicates that the reduction of the syllogism must be done in multiple steps.
- T** **F** Syllogisms in the Fourth (or Indirect First) Figure cannot be reduced to the First Figure.