

Unit 16 - Homework 6: Plato's *Euthydemus* Dialogue (4)

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In order to answer the following questions, read pages 26–40 in Unit 16, and refer to the four valid syllogisms below.

**The Disjunctive Syllogism**

*Premise 1:*        P or Q,  
*Premise 2:*        not-P .  
*Conclusion:*        So, Q.

**The Hypothetical Syllogism**

*Premise 1:*        If P then Q,  
*Premise 2:*        If Q then R .  
*Conclusion:*        So, if P then R.

**Modus Ponens** (Affirming the Antecedent)

*Premise 1:*        If P then Q,  
*Premise 2:*        P .  
*Conclusion:*        So, Q.

**Modus Tollens** (Denying the Consequent)

*Premise 1:*        If P then Q,  
*Premise 2:*        not-Q .  
*Conclusion:*        So, not-P.

1. Socrates and Euthydemus discussed the following epistemological arguments. (See page 36 in Unit 16.)

After filling in the blanks for the following syllogisms, answer the question below.

LINE 1	If Socrates knows something, then Socrates knows everything.	<i>assumption (hypothesis)</i>
LINE 2	_____.	<i>assumption</i>
LINE 3	_____.	<i>assumption</i>
LINE 4	_____.	<i>In a modus ponens syllogism, if the premises are Line 1 and Line 2, then Line 4 is the logical conclusion.</i>
LINE 5	_____.	<i>In a modus tollens syllogism, if the premises are Line 1 and Line 3, then Line 5 is the logical conclusion.</i>
LINE 6	_____, and _____.	<i>By means of logical conjunction, if the premises are Line 2 and Line 5, then Line 6 is the logical conclusion.</i>
LINE 7	_____, and _____.	<i>By means of logical conjunction, if the premises are Line 4 and Line 3, then Line 6 is the logical conclusion.</i>

- QUESTION: According to Socrates, which line in the argument was a *false* assumption? Explain your answer.

2. Dionysodorus made the following epistemological argument about himself. Accordingly, fill in the blanks.  
(See page 37 in Unit 16.)

LINE 1	If Dionysodorus knows something, then Dionysodorus knows everything.	<i>assumption (hypothesis)</i>
LINE 2	Dionysodorus knows something.	<i>assumption</i>
LINE 3	_____.	In a <i>modus ponens</i> syllogism, if the premises are Line 1 and Line 2, then Line 3 is the logical conclusion.

3. In response to Dionysodorus, Socrates made the following genealogical argument. Accordingly, fill in the blanks.  
(See page 38 in Unit 16.)

LINE 1	If Socrates and Patrocles were <i>brothers</i> , then either Patrocles was the father of Iolaus, or Socrates <i>wasn't</i> the uncle of Iolaus.	<i>assumption (hypothesis)</i>
LINE 2	Socrates and Patrocles were brothers.	<i>assumption</i>
LINE 3	Either _____, or _____.	In a <i>modus ponens</i> syllogism, if the premises are Line 1 and Line 2, then Line 3 is the logical conclusion.
LINE 4	Patrocles was <i>not</i> the father of Iolaus.	<i>assumption</i>
LINE 5	_____.	In a disjunctive syllogism, if the premises are Line 3 and Line 4, then Line 5 is the logical conclusion.

4. In response to Socrates, Euthydemus made the following genealogical argument. Accordingly, fill in the blanks, and please keep in mind that Line 13 is on the next page. (See pages 38–39 in Unit 16.)

LINE 1	If Socrates & Patrocles are Phaenarete's sons, then Socrates & Patrocles are brothers.	<i>assumption</i>
LINE 2	Socrates & Patrocles <i>are</i> Phaenarete's sons.	<i>assumption</i>
LINE 3	_____.	In a <i>modus ponens</i> syllogism, if the premises are Line 1 and Line 2, then Line 3 is the logical conclusion.
LINE 4	If Socrates & Patrocles are brothers, then Socrates' father Sophroniscus is Patrocles' father Chaeredemus.	<i>assumption</i>
LINE 5	_____.	In a <i>modus ponens</i> syllogism, if the premises are Line 4 and Line 3, then Line 5 is the logical conclusion.
LINE 6	If Socrates' father Sophroniscus is Patrocles' father Chaeredemus, then everyone has the same father.	<i>assumption</i>
LINE 7	_____.	In a <i>modus ponens</i> syllogism, if the premises are Line 6 and Line 5, then Line 7 is the logical conclusion.
LINE 8	If everyone has the same father, then every father is Ctesippus' father.	<i>assumption</i>
LINE 9	_____.	In a <i>modus ponens</i> syllogism, if the premises are Line 8 and Line 7, then Line 9 is the logical conclusion.
LINE 10	If every father is Ctesippus' father, then either Ctesippus' dog is <i>his</i> father, or Ctesippus' dog <i>isn't</i> a father at <i>all</i> .	<i>assumption</i>
LINE 11	Either _____, or _____.	In a <i>modus ponens</i> syllogism, if the premises are Line 10 and Line 9, then Line 11 is the logical conclusion.
LINE 12	Ctesippus' dog <i>is</i> a father.	<i>assumption</i>

LINE 13	_____.	In a disjunctive syllogism, if the premises are Line 11 and Line 12, then Line 13 is the logical conclusion.
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5. In response to Socrates, Euthydemus made the following genealogical argument. Accordingly, fill in the blanks.  
(See page 40 in Unit 16.)

LINE 1	If Socrates is an Athenian, then Socrates' gods are the Athenian gods.	<i>assumption</i>
LINE 2	Socrates <i>is</i> an Athenian.	<i>assumption</i>
LINE 3	_____.	In a <i>modus ponens</i> syllogism, if the premises are Line 1 and Line 2, then Line 3 is the logical conclusion.
LINE 4	If Socrates' gods are the Athenian gods, then either Socrates' gods are animals, or Socrates' gods <i>aren't</i> alive.	<i>assumption</i>
LINE 5	Either _____, or _____.	In a <i>modus ponens</i> syllogism, if the premises are Line 4 and Line 3, then Line 5 is the logical conclusion.
LINE 6	Socrates' gods <i>are</i> alive.	<i>assumption</i>
LINE 7	_____.	In a disjunctive syllogism, if the premises are Line 5 and Line 6, then Line 7 is the logical conclusion.