

**Critical Reasoning, PHIL105.005 Fall, 2009**

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Office hours: T 10-11:30; Th, F 3:30-5:00 and other times by appointment

NAME \_\_\_\_\_

**Exercise Set #2** - Hi. Here is the second Exercise Set for this term. It is due by the end of the day, **Friday, October 23**. You can hand your finished work in at class-time that day, or place it in my mailbox in the English and Philosophy Department, or slip it under my office door any time up until 5:00pm. Emailed work will be considered on time if sent before midnight that night. Please follow all the instructions carefully, and let me know if you'd like me to clarify anything, or if you have any questions.

**Ex. 2.1 Questions - Instructions:** Based only on the text and discussion from this class, answer the three questions below in a clear and detailed way, in at least about 6-8 sentences each, in your own words as much as possible. (10 points each)

1. Fully explain the differences between deductive and inductive inference based on our class discussion of these terms.

2. Carefully and completely identify the three main characteristics of deductive and inductive arguments. Which type makes up the majority of arguments in the sciences?

3. Give a clear and careful definition for “inductive fallacy” and “deductive fallacy,” and provide an original example of each. (An original example is one that you have created on your own, by yourself.)

**Exercise 2.2 Deductive Argument Analysis and Inference Recognition** – *Instructions:* Apply the four-step method introduced in Chapter 2 to analyze each argument in the follow way: *Circle or format in bold italics* any logical indicators that you find, place the conclusion in *brackets*, *underline* all of the premises, and *write out the* question and two foundational assumptions in the spaces provided. **Then** determine the “shape” of the arguer’s reasoning and write the name of its *valid deductive pattern* on the last line. (7 pts. each)

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Example: *Since* all pigeons are doves, [the square is full of doves,] *seeing as* the square is visibly full of pigeons.  
*Question:* Are those doves in the square?  
*Assuming:* There are birds in the square.  
*Assuming:* I know pigeons when I see them  
*Deductive Pattern:* universal categorical syllogism

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1. I say the legal drinking age is too high, seeing as 18 year-olds can vote in elections and fight in wars, which require responsible and mature decisions. Either 18-year-olds aren’t old enough to make responsible and mature decisions, or the drinking age is too high.

*Question:* \_\_\_\_\_  
*Assuming:* \_\_\_\_\_  
*Assuming:* \_\_\_\_\_  
*Deductive Pattern:* \_\_\_\_\_

2. Curtis 454 is a Drexel classroom. All classrooms at Drexel are kept at ideal learning temperature year-round by precision, space-age thermostat technology developed in the University’s own underground labs. Hence, Curtis 454 is kept at ideal learning temperature year-round.

*Question:* \_\_\_\_\_  
*Assuming:* \_\_\_\_\_  
*Assuming:* \_\_\_\_\_  
*Deductive Pattern:* \_\_\_\_\_

3. Her sleeping cycle becomes upset and irregular if she watches Korean horror movies right before bedtime. Annamarie's sleep cycle is not upset and irregular these days. So she must have stopped watching horror movies right before bedtime.

Question: \_\_\_\_\_

Assuming: \_\_\_\_\_

Assuming: \_\_\_\_\_

Deductive Pattern: \_\_\_\_\_

4. Given that she will devote little time to socializing activities with other children if she spends every afternoon video-gaming, and that she will become isolated and lonely if she does, it follows that your child will become isolated and lonely if she spends every afternoon video-gaming.

Question: \_\_\_\_\_

Assuming: \_\_\_\_\_

Assuming: \_\_\_\_\_

Deductive Pattern: \_\_\_\_\_

**Exercise 2.3 Deductive Inference Recognition - Instructions:** Match each argument with the appropriate letter from the list. Use all ten choices. (3 pts each)

a. disjunctive syllogism	c. <i>modus ponens</i>	e. universal categorical syllogism	g. broken chain	i. denying the antecedent
b. hypothetical chain	d. <i>modus tollens</i>	f. false dilemma	h. affirming the consequent	j. undistributed middle

1. \_\_\_\_ Señor Arturo Sclerosis has high cholesterol disease that could either be from a genetic predisposition in his family or his lack of exercise, or from eating too much manicotti. But I believe his high cholesterol disease is actually the result of eating too much manicotti, because there is no sign of any predisposition toward high cholesterol in his family.

2. \_\_\_\_ Student clubs are allowed to hold events using funds they have raised themselves, or which are provided by the Student Activities Fund. We'll have to hold a bake sale to raise money, seeing as our club doesn't have any Student Activities Fund money.

3. \_\_\_\_ Since it's clear that investment has been stimulated and the amount of money lent by banks is up, interest rates must have been lowered because more money is lent between banks, stimulating investment if interest rates are lowered.

4. \_\_\_\_ If Levon Helm was the best mandolin player in The Band, then he was better than Robbie Robertson. Since it is clear that Levon Helm was the best mandolin player in The Band, it follows that he was better than Robbie Robertson.

5. \_\_\_\_ Mario LeMeow didn't swallow a dustbunny last night since he didn't throw anything up near the cat-box today. If Mario

LeMeow swallows a dustbunny, he throws it up near the cat box the next morning.

6. \_\_\_\_ You will catch pneumonia if you go outside into the cold without a hat. If the Phillies advance to the World Series this season, then you will miss a lot of classes. Therefore, if you go outside into the cold without a hat you will miss a lot of classes.

7. \_\_\_\_ Drexel will not stop Melanie from graduating. Drexel stops students from graduating if they keep library books past their due date. But Melanie didn't have any overdue books from the library.

8. \_\_\_\_ Being perfect and unchanging, God cannot feel sorrow. But if God is merciful, God must feel sorrow. Hence, God cannot be merciful.

9. \_\_\_\_ Popeye would be stronger than Bluto, if he'd eat his spinach regularly, and Olive Oyl would love him, if Popeye was stronger than Bluto. As a result, Olive Oyl would love him, if Popeye would eat his spinach regularly.

10. \_\_\_\_ Cheating in homework or papers turns schoolwork into a pretense. So plagiarism turns schoolwork into a pretense because plagiarism is a form of cheating in homework or papers.

11. \_\_\_\_ Ben Francisco is a hard-working, dedicated baseball player. Here's why—all of the Phillies are hard-working, dedicated baseball players, and Ben Francisco is a Phillie.

12. \_\_\_\_ If Nike factories keeps most of its factories in Indonesia, it will be a good thing for the working people, because their managers have agreed to implement fair work rules and higher pay if Nike keeps most of its factories there. And if the managers implement fair work rules and pay higher wages, then it will be good for the working people of that country.

13. \_\_\_\_ Given that all wooden things burn, witches must be made out of wood, seeing as witches burn.

14. \_\_\_\_ Given that there is no fire here, there must not be any oxygen either, seeing as there is oxygen, if there is fire.