

# Introduction to Logical Reasoning

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## Problem Set #13

Although I strongly suggest that you write out answers to all these problems, *you do not have to turn in any written responses*. You do, however, need to be prepared to do these types of problems, for *questions on the weekly quizzes and exams will primarily be drawn from the problem sets*. The solutions to these problems will be provided, so you can check your own work and seek help from me as necessary.

We will devote considerable time to these problems during the next in-class workshop. In order to make that workshop productive, please make a solid start on them. That way we can use the workshop to look at the problems that presented the most difficulties.

If you do either extra credit problem (or both of them), you must turn in your *type-written* solution at the *beginning* (i.e., within the first ten minutes) of class on Sunday, April 17<sup>th</sup>.

### Parts A & B Instructions

Each of the following problems presents an argument. For each argument identify any fallacies it makes. Some make contain more than one fallacy and some may contain no fallacies at all.

#### Part A Problems

Do the arguments in Exercise 5.2 on pages 202–204 from *The Power of Critical Thinking* by Lewis Vaughn.

#### Part B Problems

Do the arguments in Exercise 5.3 on pages 204–205 from *The Power of Critical Thinking* by Lewis Vaughn.

### Parts C Instructions

Each of the following problems presents a claim followed by a type of fallacy in parentheses. For each of these claims devise an argument defending that seems persuasive but one that actually employs the indicated fallacy.

#### Part C Problems

Do the claims in Exercise 5.3 on page 205 from *The Power of Critical Thinking* by Lewis Vaughn.

**Note:** There may a lot of exercises here. Do not feel obligated to do all of them. I often assign many exercises so that you have plenty of opportunities to practice the skills these exercises are trying to impart. I suggest doing just enough of them so that you are confident that you could use these skills on a quiz or an exam.

### Extra Credit Field Work (Not too Hard)

Locate at least two examples of fallacies from various editorials/letters sections from a newsmagazine, newspaper, or news website. These editorials or letters should be no more than three months old. Be sure to clearly cite where you found the editorial or letter, and be sure to clearly explain the fallacy being committed in it.

### Extra Credit Logic Puzzle (Hard)

A wily young logician once met a famous movie actress, and he wished to kiss the young woman on the cheek. He said to her, “I would like to ask you a favor. I will make a statement. All I ask is that if the statement is true, then you give me your autograph. Will you do that for me?”

“I don’t see why not,” replied the young woman.

“But,” continued the logician, “you must promise that if my statement is false, then you don’t give me your autograph. Agreed?”

“All right,” said the young woman, “this sounds easy.”

The young man then made a statement such that, after a little thought, the actress, who was no slouch in logic either, realized (to her secret amusement) that the only way she could keep her word was to *not* give the man her autograph, but to allow him to kiss her on the cheek.

**Question:** What statement could the logician have said for this to happen?

To receive any credit you must justify your answer with a logical argument showing why you are 100% right. That is to say, this question has a definitive answer that can be justified without *any* guessing on your part.