

# **Introduction to Logical Reasoning**

## *Workshop on Statement Classification*

**Professor David Emmanuel Gray**

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*Northwestern University in Qatar*  
*Carnegie Mellon University in Qatar*

# Part I, Problem 1 Solution

The computer scientists love logic.

Simple positive.

# Part I, Problem 2 Solution

Either the journalism or the business students love logic.

Compound disjunctive (“either ... or ...”).

Both disjuncts are simple positive.

# Part I, Problem 3 Solution

The journalism students do not write boring articles.

Simple negative (“not”).

# Part I, Problem 4 Solution

If the journalism students love logic, then the business students are confused.

Compound hypothetical (“if... then...”).  
Both the antecedent and the consequent  
are simple positive.

# Part I, Problem 5 Solution

The computer scientists do not like illogical things and the journalism students love to expose illogical thinking in governmental officials.

Compound conjunctive (“and”).

The first conjunct is simple negative (“not”), while the second conjunct is simple positive.

# Part 2, Problem 1 Solution

The journalism students will confuse the business students, unless the business students are clever.

Compound disjunctive (“unless”).

Both disjuncts are simple positive.

Recall that “unless” usually indicates disjunction. Also in this statement, the claim is simply that at least *one* of these is true (so it is possible that both disjuncts could be true).

# Part 2, Problem 2 Solution

If both the journalism and the business students sleep through logic, then the professor will not talk quietly.

It is compound hypothetical (“if... then...”).

Its antecedent is compound conjunctive (“both... and...”), where both conjuncts are simple positive.

Its consequent is simple negative (“not”).



# Part 2, Problem 3 Solution

If either the journalism students work for Al Jazeera or the communication students win Academy Awards, then the business students will transfer to Northwestern while the computer scientists will be jealous.

It is compound hypothetical (“if... then...”).

Its antecedent is compound disjunctive (“either... or...”), where both disjuncts are simple positive.

Its consequent is compound conjunctive (“while”), where both conjuncts are simple positive. “While” indicates conjunction as it asserts something about *both* business *and* CS students.

# Part 2, Problem 4 Solution

Study logic every night and you will get a good grade.

Compound hypothetical (“and”).

Both the antecedent and the consequent are simple positive.

Did this one fool you?

Sometimes, “and” can denote a hypothetical. Here the only way to prove this statement wrong is to make the antecedent true (by studying every night) and then showing the consequent is false (you don’t get a good grade).

# Next Class...

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We will finally start to look at arguments by learning about the “glue” that binds statements together in an argument: inferences!

Also, please don't forget to turn in your response to the Workshop #1 Questionnaire on your way out.