Math 107 Section 1.5

Name: _____

** ATTEMPT EACH AND CHECK ANSWERS W/ YOUR BOOK. THESE ARE THE BOOK EXAMPLES FROM 1.5!

Argument: Consists of premise(s) and one conclusion.

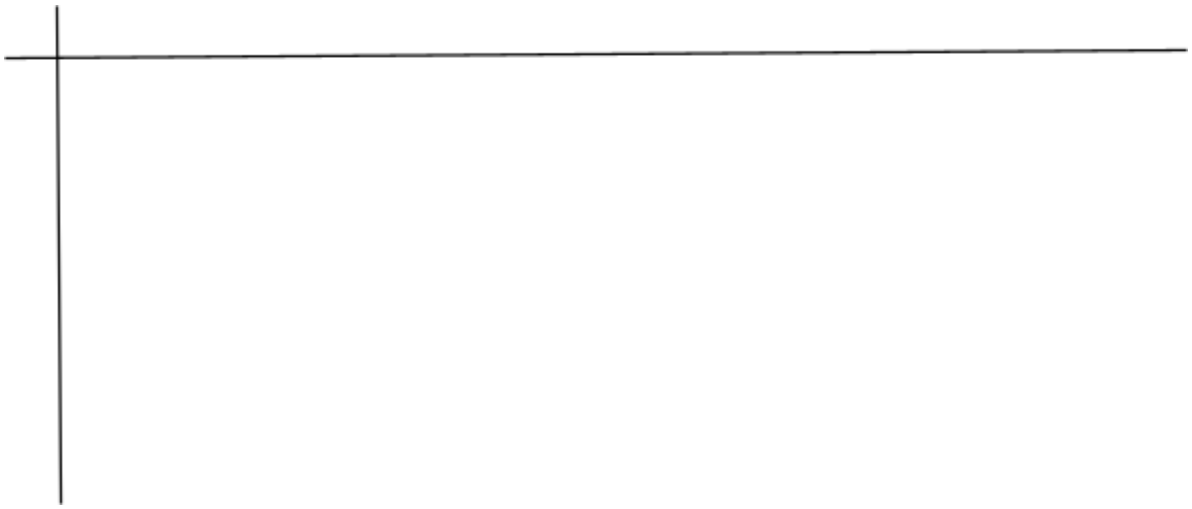
Validity: An argument is **valid** if *the conclusion is guaranteed* under its given set of premises, and invalid otherwise.

1. If he is illiterate, he cannot fill out an application
2. He can fill out the application

   Therefore, he is not illiterate (is literate)

   a) Define p and q, then put the whole argument into symbolic form.
   p: He is illiterate
   q: He can fill out the application

   b) Use a truth table to determine if the argument is valid or invalid.



   c) Draw a Venn Diagram to support your claim above

Read from 1.5… take notes on the vocabulary word below.

Tautologies:

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1. If the defendant is innocent, the defendant does not go to jail.
2. The defendant does not go to jail.

∴ Therefore, the defendant is innocent.

STEP 1 (DEFINE STATEMENTS):

p: The defendant is innocent

q: The defendant goes to jail

STEP 2 (SYMBOLIZE THE ARGUMENT):

1.

2.

∴

STEP 3 (TRUTH TABLE):

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Argument:

If it is a snake, then it is not warm-blooded. If it is a mammal, then it is warm-blooded. Therefore, if it is a snake, then it is not a mammal.

STEP 1 (DEFINE STATEMENTS):

p: It is a snake

q: It is warm-blooded

r: It is a mammal

STEP 2 (SYMBOLIZE ARGUMENT):

1.

2.

$\therefore$

STEP 3 (TRUTH TABLE):