

MATH 150 QUIZ 2 - Version A

September 16, 2013

Name: ANSWER KEY

Instructions: Use your own scrap paper. Write your answers in the space provided.

1. What is a *valid* (deductive) argument?

an argument where the conclusion necessarily follows from the premises (if the premises are true, then the conclusion will be).

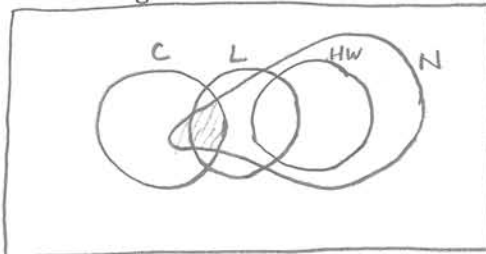
2. What is a *sound* (deductive) argument?

a valid argument with true premises

3. For the following argument, (a) draw a Venn diagram and (b) determine if it is valid or invalid.

- Premise 1: Some lawyers hate women
Premise 2: No charming people hate women
Premise 3: All people who hate women are nasty
∴ No nasty people are charming

(a) Venn diagram:



C - charming people
L - lawyers
HW - hate women
N - nasty

(b) Valid or Invalid (circle one).

4. Consider the following argument structure:

If P , then Q

P is not true

∴ Q is not true

(a) What is the name of this argument structure? Denying the hypothesis

(b) Is the argument valid or invalid? invalid

Bonus: Negate the following statement: *No salesman knows what he is talking about.*

Some (at least one) salesman knows what he is talking about.