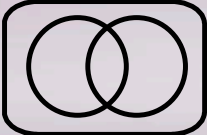
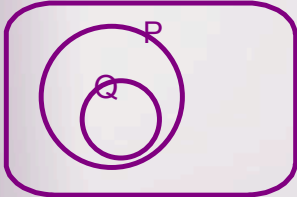


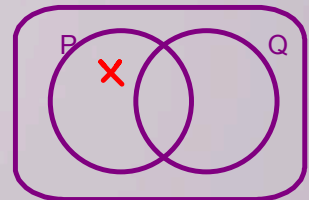
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Math 1030 #2a

Analyzing Arguments

Induction and Deduction



Inductive argument ~ Makes a case for a general conclusion from more specific premises

May not be able to prove it is true.

Evaluated in terms of its strength.

An inductive argument is strong if it makes a compelling case for the conclusion.

An inductive argument is weak if the conclusion is not supported by the premises.

The strength of an inductive argument is subjective.

EX 1: Evaluate these inductive arguments.

- a) p: If I pay more for running shoes, they last longer.
p: If I pay more for my car, it requires fewer repairs.
c: Quality comes with higher prices
- b) p: Bach, Beethoven, Brahms, Berlioz and Britten are great composers.
c: Composers with names that begin with B are great.
- c) p: My friend, the dog-trainer, has five female dogs who are all pregnant.
c: All female dogs are pregnant.

Deductive argument ~ Makes a case for a specific conclusion based on more general premises

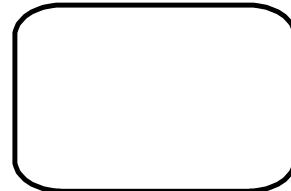
valid

sound

* Sound arguments prove the conclusion is true.

EX 2: Evaluate these deductive arguments.

- a) P: All dairy products contain protein.
P: Soy beans contain protein.
C: Soy beans are dairy products.



- b) P: All fruits are fat free.
P: An avocado is a fruit.
C: Avocados are fat free.

