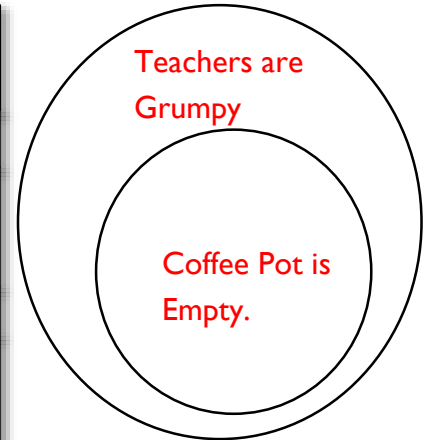


Practice**2-1****Conditional Statements**

Write each of the following as conditional statements, make a Euler diagram, and fill in the rest of the table.

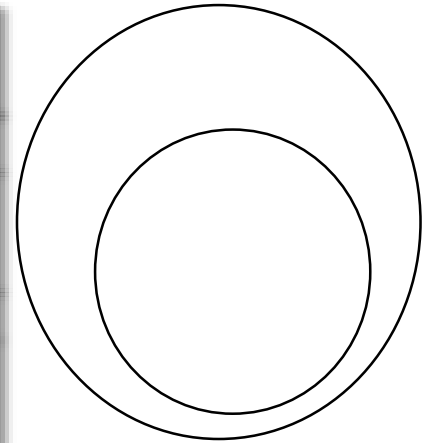
- (1) When the coffee pot is empty, all the teachers become grumpy.

If-Then form: If the coffee pot is empty, then all the teachers become grumpy.
True? Y or N
Write the negation:
True? Y or N
Switch the hypothesis and conclusion:
True? Y or N



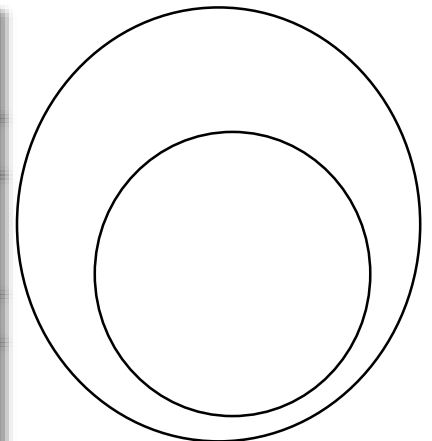
- (2) If a Tyrannosaurus Rex were alive, he would LOVE hotdogs

If-Then form:
True? Y or N
Write the negation:
True? Y or N
Switch the hypothesis and conclusion:
True? Y or N



- (3) They'll give me my diploma when I pass all my classes.

If-Then form:
True? Y or N
Write the negation:
True? Y or N
Switch the hypothesis and conclusion:
True? Y or N



(4) Let the statement p be "School is important". Let the statement q be "Everyone loves school".

a. What is the truth value of p ? (T or F)
Explain.

b. What is the truth value of $\sim p$ (T or F).
Explain.

c. What is the truth value of $\sim(\sim p)$?

d. What is the truth value of $\sim(\sim(\sim p))$?

e. What is the truth value of q ?

f. What is the truth value of $\sim q$?

g. Write the conditional statement $p \rightarrow q$.

h. What is the truth value of $p \rightarrow q$

i. Write the negation of the conditional statement, $p \rightarrow \sim q$

j. What is the truth value of $p \rightarrow \sim q$?

k. Write the conditional statement $\sim p \rightarrow \sim q$.

l. What is the truth value of $\sim p \rightarrow \sim q$

m. Write the conditional statement $\sim q \rightarrow \sim p$.

n. What is the truth value of $\sim q \rightarrow \sim p$?