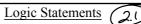
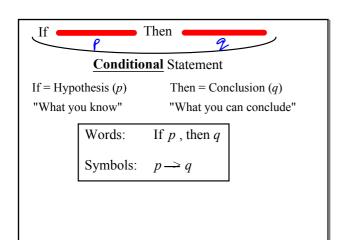
Mental Floss - Monday Oct 17^{th} A point is located at A(4,2) When adding the x and y values of that point, we get 4 + 2 = 6. Which of the following transformations gives you a new coordinate with the largest sum of x and y? •a.) Rotate 90° CW around origin 2 - 4•b.) Reflect over x-axis 4 - 2•c.) Translate along vector 4 - 2•d.) Reflect over 4 - 2•d.) Reflect over 4 - 2



- If today is Saturday, then it is the weekend.
- If it is raining, then the grass is wet.
- If it is a Monday, then I do not want to wake up.

Discuss what all three of these statements have in common.



Negation

The <u>negation</u> of a statement is the *opposite* of the original statement (p or q). To write the negation of a statement, you write the symbol for negation (\sim) before the letter.

Words:not pExample:
rIt is raining
 $\sim r$ Symbols: $\sim p$ $\sim r$ It is not raining

Negation Examples

Write the negation of each statement.

• The grass is green.

THE GNOS IS NOT GREEN.

• The shoes are not red.

AT THE Shorts ARE RED.

Logic Statements

<u>Theorems</u> = Statements that have been proven true.

<u>Definitions</u> = Statements that describe what something is and are always true.

Statements of Logic and Notation

Conditional $p \rightarrow q$ (If p, then q)

Converse $q \rightarrow p$ FLIP!!

Inverse $\sim p \Rightarrow \sim q$ NOT!!

Contrapositive $\sim q \rightarrow \sim p$ FLIP and NOT!!