If-Then Conditional Statements

Conditional Statement

a statement that can be written in the form "if p, then q"

the portion following the "if" (p), is known as the hypothesis

the portion following the "then" (q), is known as the conclusion

Notation for "if p, then q" $p \rightarrow q$

Examples   If you are 16 years old, then you can get a driver's license.

hypothesis: you are 16 years old

conclusion: you can get a driver's license

If a figure is a triangle, then the figure has three sides.
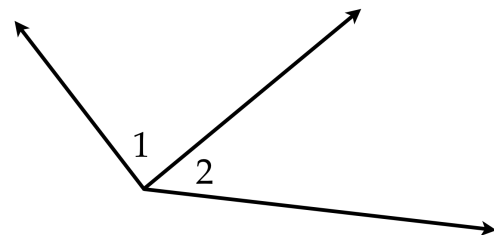
hypothesis: a figure is a triangle

conclusion: the figure has three sides

For the following conditional statements $p \rightarrow q$ ("if p, then q") label the hypothesis and conclusion.

If ∠1 and ∠2 are adjacent angles,

then ∠1 and ∠2 have a common vertex and common side.

Hypothesis, p:

Conclusion, q:
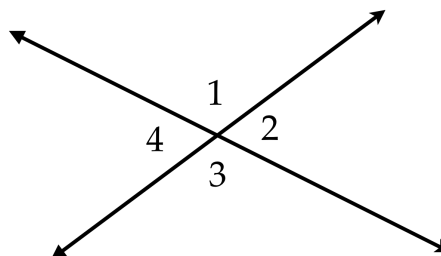
For the following conditional statements $p \rightarrow q$ ("if p, then q") label the hypothesis and conclusion.

If ∠2 and ∠4 are vertical angles,
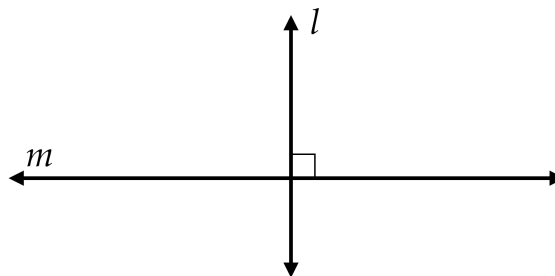then ∠2 ≅ ∠4.

Hypothesis, p:

Conclusion, q:

For the following conditional statements $p \rightarrow q$ ("if p, then q") label the hypothesis and conclusion.

If Line l ⊥ Line m,
then Line l and Line m intersect to form a right angle.
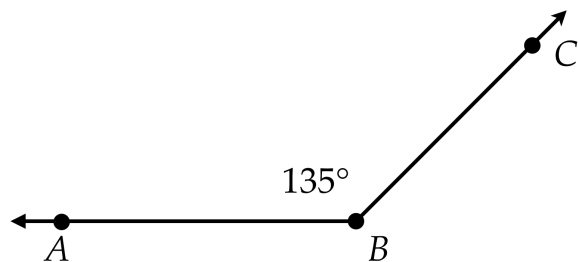
Hypothesis, p:

Conclusion, q:

For the following conditional statements $p \rightarrow q$ ("if p, then q") label the hypothesis and conclusion.

If $m\angle ABC = 135°$,
then $\angle ABC$ is an obtuse angle.

Hypothesis, p:

Conclusion, q:

135°

A B

C

Conditional Statement
a statement that can be written in the form "if p, then q"

Notation for "if p, then q" $p \rightarrow q$

Hypothesis: the portion following the "if" (p).

Conclusion: the portion following the "then" (q).