

9-24-13
1st Geo

∴ - therefore
∧ - and
∨ - or

a: you are cold
b: you like pigs
c: you are a boy

What would represent:

"If you are not cold and you are not a boy, then you like pigs."

$$\sim a \wedge \sim c \rightarrow b$$

a: you are cold
b: you like pigs
c: you are a boy

You are a boy Therefore you like pigs or you are not cold

$$c \therefore b \vee \sim a$$

a: you are cold
b: you like pigs
c: you are a boy

*If you don't like pigs and you are a boy, then you are not cold.

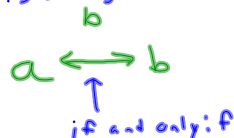
$$\sim b \wedge c \rightarrow \sim a$$

If and only if iff

If an angle is 90°, then it is a right angle.

If it is a right angle, then it is 90°.

An angle is 90° if and only if it is a right angle.



p: $x^2 = 18$

q: x is not a whole number

"If x is a whole number then $x^2 \neq 18$."

$$\sim q \rightarrow \sim p$$

p: the sum of two angles is 90°

q: the two angles are complements.

"If two angles are not complements, then the sum of the 2 angles is not 90°."

$$\sim q \rightarrow \sim p$$

a: you are old

b: you can't drive

c: you have a car

Translate:

$$\sim a \rightarrow \sim b$$

"If you are not old, then you can drive."

a: you are old

b: you can't drive

c: you have a car

$$c \wedge a \rightarrow \sim b$$

If you have a car and you are old, then you can't drive.

a: you are old

b: you can't drive

c: you have a car

$$\sim c \rightarrow b \wedge a$$

If you don't have a car, then you can't drive and you are old.