

9-23-13
1st Geo

If $\overset{p}{\text{you are nice}}$, then
 $\text{you will get candy}$
 q

$p \rightarrow q$ "p implies q"
or
"If p, then q."

p: you are 17 or older
q: you can get into an R movie

What symbolic language
would represent

"If you aren't 17 or older,
then you can't get into an
R movie."

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

p: you smell

q: you have a lot of friends

What would $p \rightarrow \sim q$ mean?

"If you smell, then you don't have
a lot of friends."

p: you can dunk

q: you play Pokemon.

Translate: $\sim q \rightarrow p$

"If you don't play Pokemon,
then you can dunk."

p: you don't like baseball

q: you are old

Translate $q \rightarrow \sim p$

"If you are old, then you do
like baseball."

Words

◦ ◦ → Therefore

V → or

∧ → And

a: you are 10

b: you like dogs

c: you get \$20

Represent

"If $\boxed{\text{you are 10}}$ \wedge $\boxed{\text{you like dogs}}$, then $\boxed{\text{you get \$20}}$."

$$a \wedge b \rightarrow c$$

"If $\boxed{\text{you have a laptop}}$ then you $\boxed{\text{have a computer}}$ " is represented by $p \rightarrow q$. What represents

"If you have a computer, then you don't have a laptop."

$$q \rightarrow \sim p$$

Let p represent $\sqrt{11} = z$, and let q represent z is a rational number.

What represents

"If $\boxed{\sqrt{11} = z}$ then $\boxed{z \text{ is not a rational number}}$."

$$p \rightarrow \sim q$$