

9-21-17

## Chapter 2 Review

a: you are tall

b: you have a tattoo

c: you don't sing

①  $\sim a \rightarrow b$

If you are not tall, then  
you have a tattoo.

②  $\sim b \rightarrow \sim c$

If you don't have a tattoo, then  
you do sing.

③  $(a \wedge c) \rightarrow b$

If you are tall **AND** you  
don't sing, then you have a tattoo.

④ "If you are nice, then  
 $x \neq 5$ ."

Converse: If  $x \neq 5$ , then you  
are nice.

inverse: If you are not nice,  
then  $x = 5$ .

Contrapositive: If  $x = 5$ , then you  
are not nice.

## Properties

⑤ If  $AM = NY$ , then  $NY = AM$ .

Symmetric

⑥  $\angle ABC = \angle ABC$

Reflexive

⑦ If  $AN = BY$  and  $BY = NC$ ,  
then  $AN = NC$ .

Transitive

⑧ If  $AB - BC = NT - BC$ , then  
 $AB = NT$ .

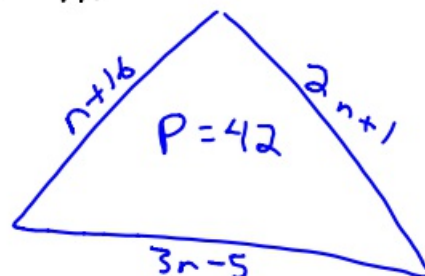
Addition

⑨ If  $AC = NT$ , then

$AC - NY = NT - NY$ .

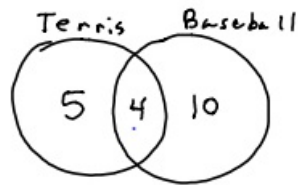
Subtraction

⑩ If the perimeter of a triangle is 42 with sides of  $2n+1$ ,  $3n-5$ , and  $n+16$ , what is  $n$ ?



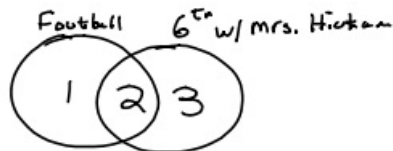
$$n+16 + 3n-5 + 2n+1 = 42$$

$$\begin{array}{r} 6n + 12 = 42 \\ -12 \quad -12 \\ \hline 6n = 30 \\ n = 5 \end{array}$$

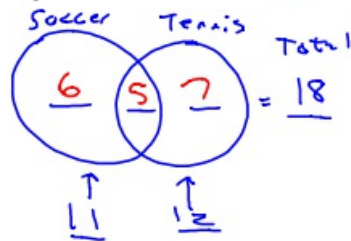


⑪ How many play tennis AND baseball? 4

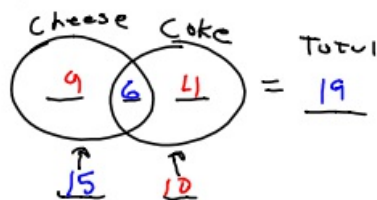
⑫ How many play Tennis OR baseball? 19



⑬ Of 18 kids, 11 play soccer and 12 play tennis. How many play just soccer? 6



⑭ Everyone loves cheese or Coke. If 15 love cheese with 6 loving both, how many love just Coke if there are 19 total kids?



9-21-17 6<sup>th</sup> Geo

## Chapter 2 Review

a: you are tall

b: you don't like cats

c: you are bald.

①  $\sim b \rightarrow a$

If you like cats, then you are tall.

②  $a \rightarrow \sim c \therefore b$

If you are tall, then you are not bald. Therefore, you don't like cats.

③  $(a \wedge b) \rightarrow \sim c$

If you are tall AND you don't like cats, then you are not bald.

### Properties

④ If  $AN = PM$ , then  $PM = AN$ .

Symmetric

⑤  $\angle ANY = \angle ANY$

Reflexive

⑥ If  $AN = XY$  and  $XY = PR$ , then

$AN = PR$ . Transitive

⑦ If  $AN - PT = IO - PT$ , then

$AN = IO$ . Addition

⑧ If  $AP = BC$ , then

$AP - NT = BC - NT$ .

Subtraction

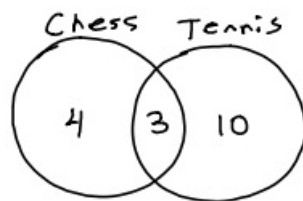
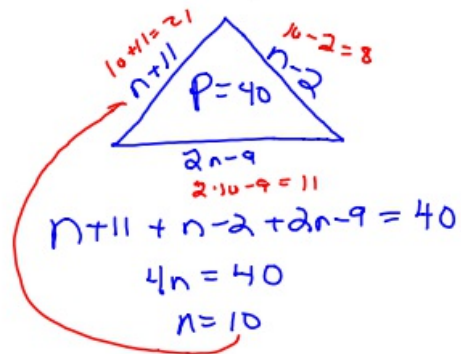
If you are young, then you can't sing.

⑨ Converse: If you can't sing, then you are young.

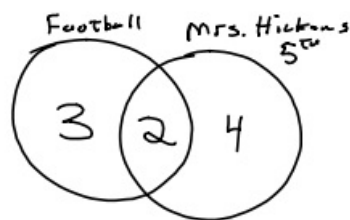
⑩ Inverse: If you are not young, then you can sing.

⑪ Contrapositive: If you can sing, then you are not young.

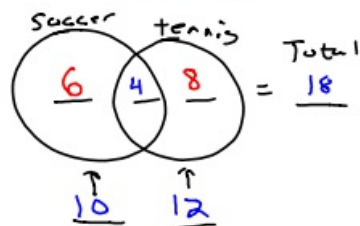
- ⑫ If the perimeter of a triangle is 40 and its sides are  $n-2$ ,  $2n-9$ , and  $n+11$ , what is the length of the longest side?



- ⑬ How many do both chess AND tennis? 3
- ⑭ How many play chess or tennis? 17



- ⑮ I have a total of 18 kids. If 10 people play soccer and 12 play tennis, how many play just tennis? 8



(16) Everyone eats cheese or drinks Mt. Dew. Of the 20 people, 6 like both and a total of 14 love Mt. Dew. How many eat cheese? **12**

