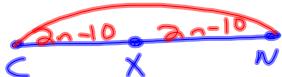


9-26-13

1st Geo

From RQ 1 #2

If  $X$  is the midpoint of  $\overline{CN}$   
and  $CX = 2n-10$ , what is  $CN$ ?



$$4n-20$$

### Properties

Reflexive

Symmetric

Substitution

Transitive

Addition

Subtraction

Multiplication

Division

①  $\angle ABC = \angle ABC$  Reflexive

② If  $CN + BC = 10$ , Substitution  
then  $CN = 10 - BC$ .

③ If  $AB = XY$ , Symmetric  
then  $XY = AB$ .

④ If  ~~$AB = CD$~~ , Division  
then  $AB = \frac{CD}{Z}$ .

⑤ If  $AB = Z$  and  
 $CD + AB = XY$ , then Substitution  
 $CD + Z = XY$ .

### Example of Transitive

Tom beat up Rick  
Rick beat up Jim

⑥ If  $CN = XY$  and  
 $XY = AB$ , then  
 $CN = AB$ . Transitive

⑦ If  $CN = BX$ , Addition  
then  $CN + AY = BX + AY$ .

⑧ If  $\frac{CX}{2} = 10$ , then Multiplication  
 $CX = 20$ .

⑨ If  $\angle 1 = 30^\circ$  and  
 $\angle 1 + \angle 2 = \angle 3$ , then Substitution  
 $\underline{30^\circ} + \angle 2 = \angle 3$ .

⑩ If  $\angle ABC = \angle XYZ$ , Subtraction  
then  $\angle ABC - 20^\circ = \angle XYZ - 20^\circ$

⑪ If  $\underset{+XY}{AB} = \underset{+XY}{BC}$ , Addition  
then  $AB = BC$ .

⑫ If  $XY - 4 = BC$ , Addition  
then  $XY = BC + 4$ .

⑬ If  $\frac{-1 \cdot AB}{-1} = -10$ , Division  
then  $AB = 10$ .

⑭ If  $5 \cdot AB = BC$ , Division  
then  $AB = \frac{BC}{5}$ .