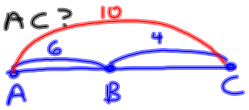
9-3-13

1st Geo

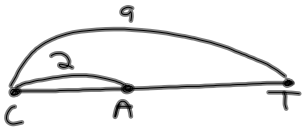
Betweenness of Points

① If B is between A and C with AB = 6 and BC = 4, what is AC?



10

NO + OT = NT



AT = ? 7

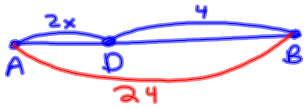
CA + AT = CT

2 + AT = 9

② (5) If D is between A and B with AB = 24 and AD = 1.5, what is BD?

24 - 1.5 = 22.5

③ (9) If D is between A and B with AD = 2x, BD = 4, and AB = 24, what is AD?



AD + DB = AB

2x + 4 = 24

- 4 - 4

$\frac{2x}{2} = \frac{20}{2}$

x = 10

∴ AD = 2x = 2(10) = 20

∴ Therefore

④ If T is between A and V with $AT = 2n+1$, $TV = 3n+5$, and $AV = 6n-8$, what is AT?

$AT + TV = AV$

$2n+1 + 3n+5 = 6n-8$

$5n + 6 = 6n - 8$

$-5n \quad\quad -5n$

$6 = n - 8$

$+8 \quad\quad +8$

$14 = n$

$\therefore AT = 2n+1 = 2(14)+1 = 29$

⑤ If D is between A and B with $AB = 4n+10$ and $AD = n-2$, what is BD? (Expression Answer)

$AD + DB = AB$

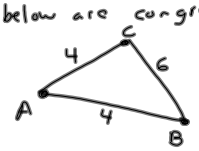
$n-2 + DB = 4n+10$

$-n+2 \quad\quad -n+2$

$DB = 3n + 12$

Congruent – it is same shape or length.

⑥ Which two line segments below are congruent?



$\overline{AB}$ is congruent to $\overline{AC}$

$\overline{AB} \cong \overline{AC}$

⑦ If B is between A and C with $AB = 2n$ and $AC = 6n+5$, what is BC? (Expression Answer)

$AB + BC = AC$

$2n + BC = 6n+5$

$-2n \quad\quad -2n$

$BC = 4n+5$