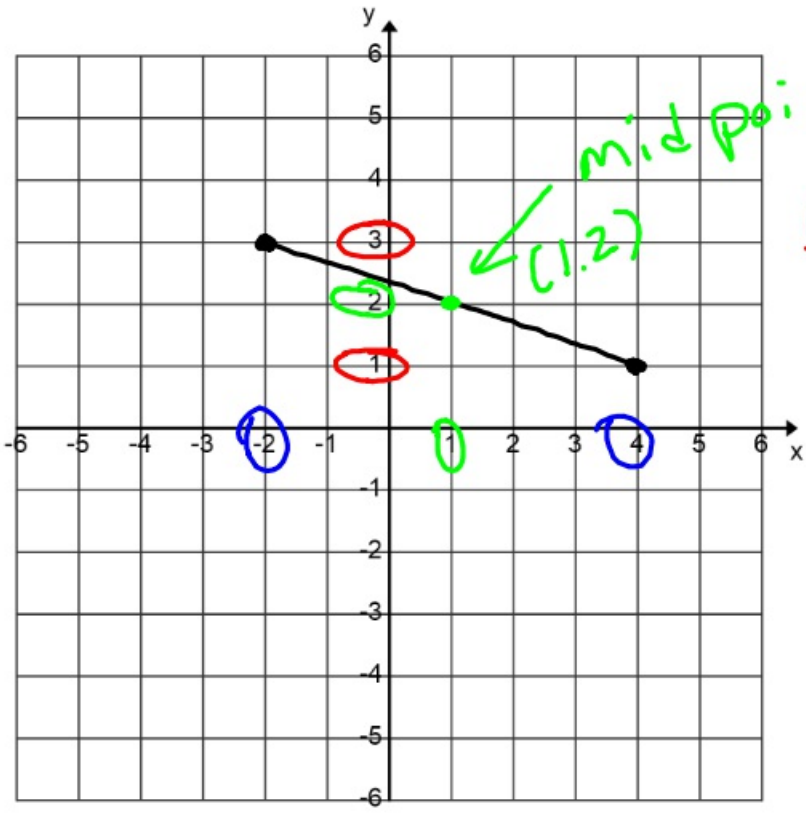
8-23-18 Geo

How do we find the middle of 2 #s?

$$\frac{48+14}{2} = 31$$



$$\frac{1+3}{2} = 2$$

$$\frac{4+-2}{2} = 1$$

Give me formula for midpoint.

$$\text{midpoint} = \left(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}\right)$$

Find the midpoint for the line segments that have these endpoints

① $(2,8)\ (4,18)$

$$\text{Midpoint} = \left(\frac{2+4}{2}, \frac{8+18}{2}\right)$$

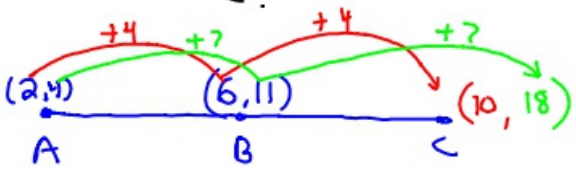
$$(3,13)$$

② $(-3,-8)\ (-5,10)$

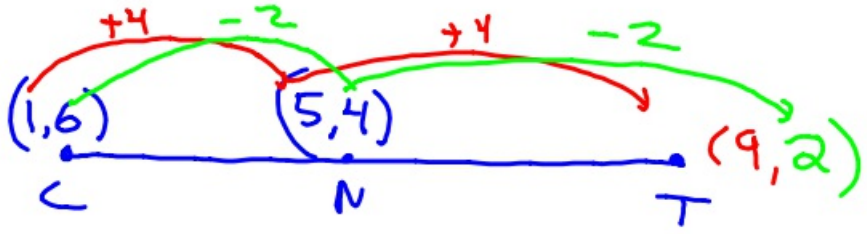
$$\text{Midpoint} = \left(\frac{-3+-5}{2}, \frac{-8+10}{2}\right)$$

$$= (-4,1)$$

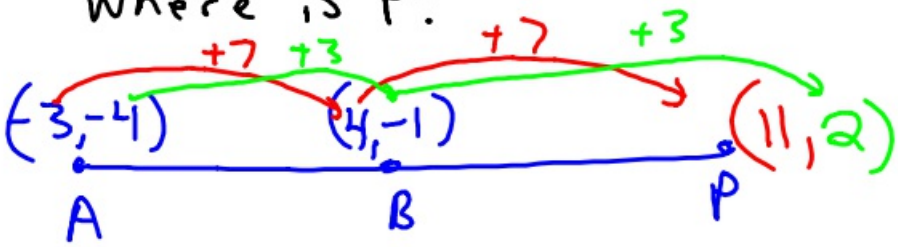
③ B is the midpoint of $\overline{AC}$. If A = (2,4) and B = (6,11). What is C?



(4) N is the midpoint of $\overline{CT}$. If $C=(1,6)$ and $N=(5,4)$, where is T?

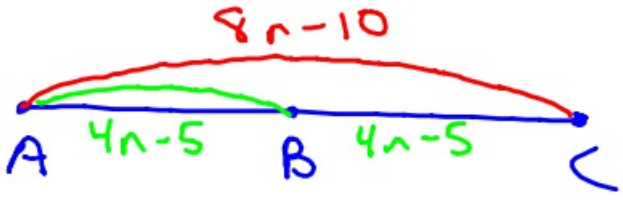


(5) B is the midpoint of $\overline{AP}$. If $B=(4,-1)$ and $A=(-3,-4)$, where is P?

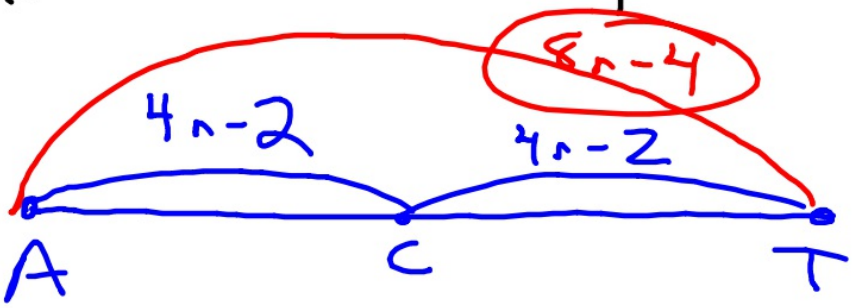


(6) If B is the midpoint of $\overline{AC}$ and $AC = 8n-10$, what is AB?

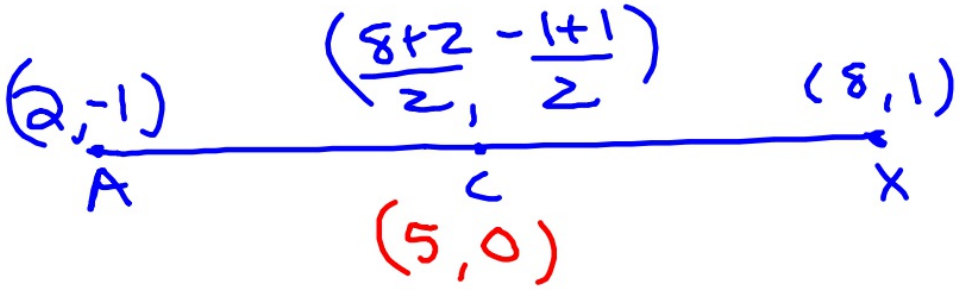
$4n-5$



(7) If C is midpoint of $\overline{AT}$ and $AC = 4n-2$, what is AT?



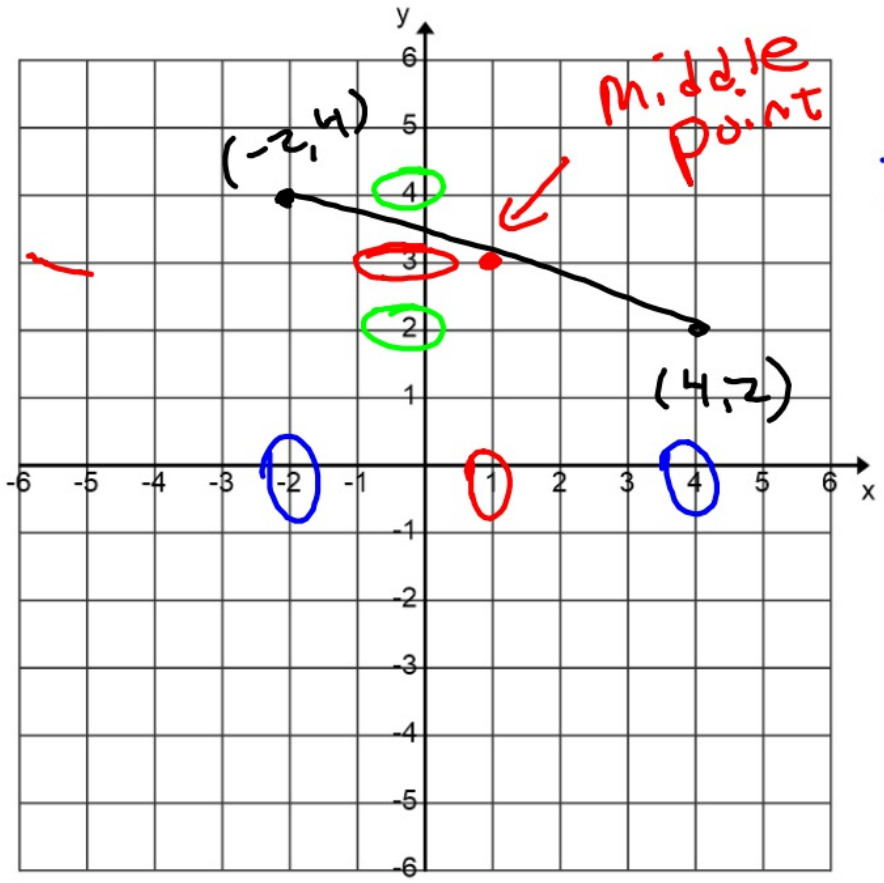
(8) If C is midpoint of $\overline{AX}$ with $A=(2,-1)$ and $X=(8,1)$, where is C?



8-23-18 6th Geo

How do we find the middle of my age and yours?

$$\frac{48+14}{2} = 31$$



$$\frac{-2+4}{2} = 1$$

$$\frac{4+2}{2} = 3$$

Can you give me the formula for the midpoint?

$$\text{Midpoint} = \left(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}\right)$$

Find the midpoint of the following.

① (2,6) (8,12)

$$\text{midpoint} = \left(\frac{2+8}{2}, \frac{6+12}{2}\right)$$

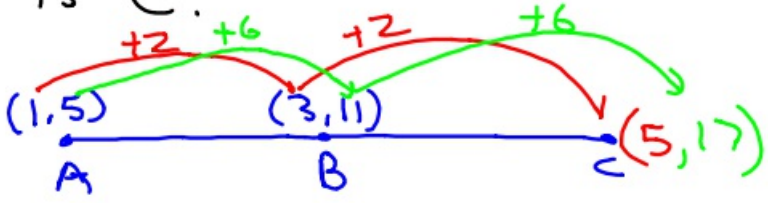
$$(5,9)$$

② (-8,6)(-4,-2)

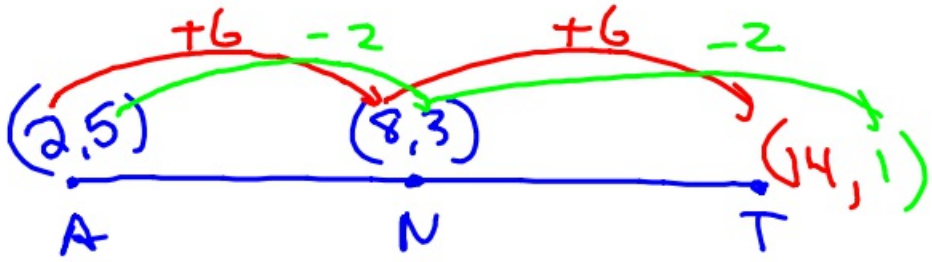
$$\text{Midpoint} = \left(\frac{-8+-4}{2}, \frac{6+-2}{2}\right)$$

$$(-6,2)$$

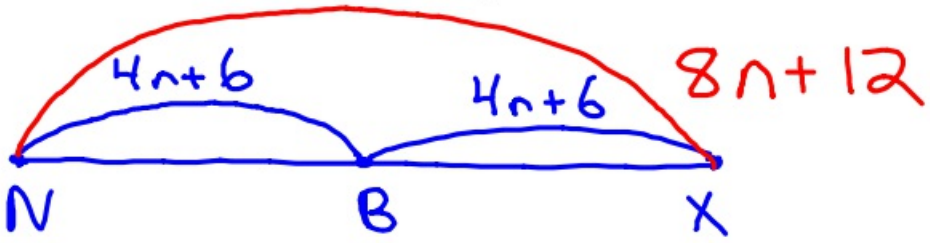
③ B is the midpoint of $\overline{AC}$. If A = (1,5) and B = (3,11), where is C?



(4) If N is the midpoint of $\overline{AT}$ with $A=(2,5)$ and $N=(8,3)$, where is T?



(5) B is the midpoint of $\overline{NX}$. If $BN = 4n+6$, what is NX?



(6) B is the midpoint of $\overline{AX}$. If $AX = 8n+4$, what is AB?