9-1-17 5th Geo

Ch. 1 Test on Wednesday

Review

① If A=(2,-6) and B=(-1,1), what is AB?

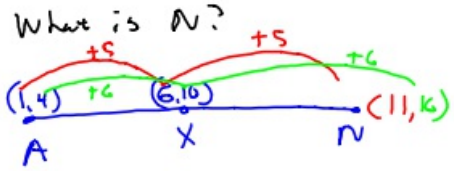
$$D = \sqrt{\Delta x^2 + \Delta y^2}$$
$$= \sqrt{3^2 + 7^2}$$
$$= \sqrt{9+49}$$
$$= \sqrt{58}$$
$$\approx 7.6$$

② If $\angle XYZ$ and $\angle AYT$ are a linear pair and $\angle XYZ = 2n+30$ and $\angle AYT = 3n+50$, what is $\angle AYT$?

$$\angle XYZ + \angle AYT = 180^\circ$$
$$2n+30 + 3n+50 = 180^\circ$$
$$5n+80 = 180$$
$$-80 \quad -80$$
$$5n = 100^\circ$$
$$n = 20^\circ$$

$\angle AYT = 3n+50$
$= 3 \cdot 20 + 50$
$= 110$

③ X is the midpoint of $\overline{AN}$. If X=(6,10) and A=(1,4), what is N?



④ If C is between A and B and $AB = 20$, $AC = 3n+1$, and $BC = 2n-3$, what is AC?

$AC + CB = AB$

$3n+1 + 2n-3 = 20$

$5n - 2 = 20$

$+2 \quad +2$

$\frac{5n}{5} = \frac{22}{5}$

$n = 4.4$

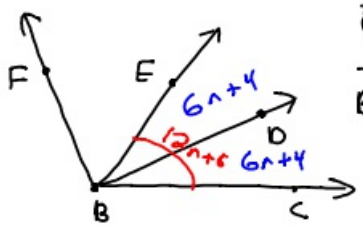
$AC = 3n+1$

$3 \cdot 4.4 + 1$

$13.2 + 1$

14.2

⑤

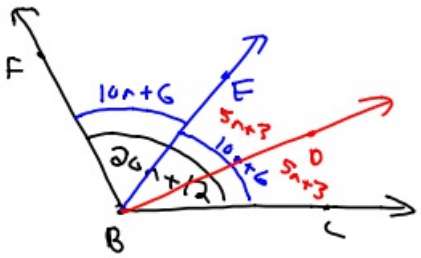


$\overrightarrow{BD}$ bisects $\angle EBC$

$\overrightarrow{BE}$ bisects $\angle FBC$

If $\angle EBC = 12n+8$, what is $\angle EBD$?

⑥ Some picture. If $\angle FBC = 20n+12$, what is $\angle EBD$?



9-1-17 6th Geo

Chapter 1 Test Wednesday

① If $A=(2,3)$ and $B=(5,10)$, What is AB?

$$D=\sqrt{\Delta x^2+\Delta y^2}$$

$$\sqrt{3^2+7^2}$$

$$\sqrt{9+49}$$

$$\sqrt{58}\approx 7.6$$

② If B is between A and C with $AB=3n+1$, $AC=20$, and $BC=2n-1$, what is AB?

$$AB+BC=AC$$

$$3n+1+2n-1=20$$

$$5n=20$$

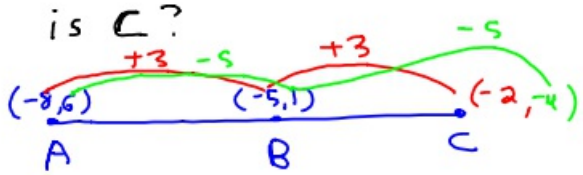
$$n=4$$

$$AB=3n+1$$

$$3\cdot 4+1$$

$$13$$

③ B is the midpoint of $\overline{AC}$. $A=(-8,6)$ $B=(-5,1)$; what is C?



④ $\angle ABC$ and $\angle NBT$ are a linear pair. If $\angle ABC = 7n$ and $\angle NBT = 3n + 80$, what is $\angle NBT$?

$\angle ABC + \angle NBT = 180°$

$7n + 3n + 80 = 180°$

$10n + 80 = 180°$

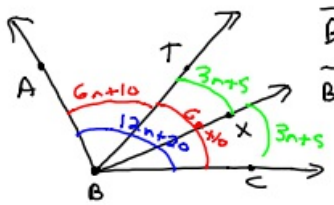
$-80 \quad -80$

$10n = 100$

$n = 10$

$\therefore NBT = 3 \cdot 10 + 80$

$= 110°$

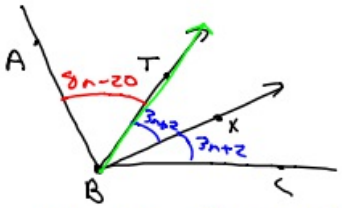


$\overrightarrow{BT}$ bisects $\angle ABC$

$\overrightarrow{BX}$ bisects $\angle TBC$

⑤ If $\angle ABC = 12n + 20$, what is $\angle TBX$? $3n + 5$

⑥ Same picture. $\angle TBX = 3n + 2$ and $\angle ABT = 8n - 20$. What is $\angle XBC$?



$8n - 20 = 3n + 2 + 3n + 2$

$8n - 20 = 6n + 4$

$-6n \quad -6n$

$2n - 20 = 4$

$+20 \quad +20$

$2n = 24$

$n = 12$

$\angle XBC = 3n + 2$

$= 3 \cdot 12 + 2$

$= 38°$