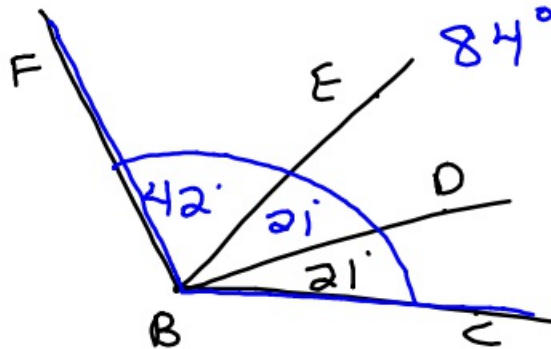


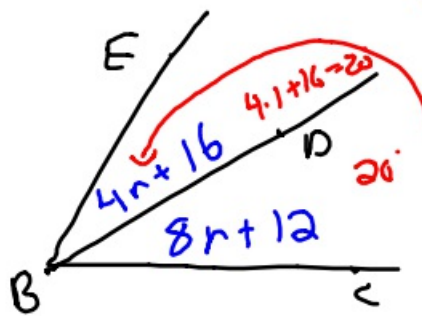
9-5-17 5th Geo

Ch. 1 PT 2

(21)



(22)

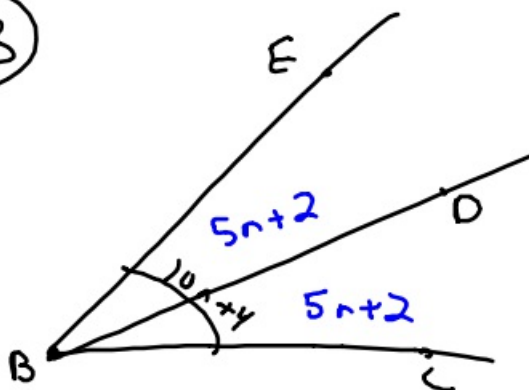


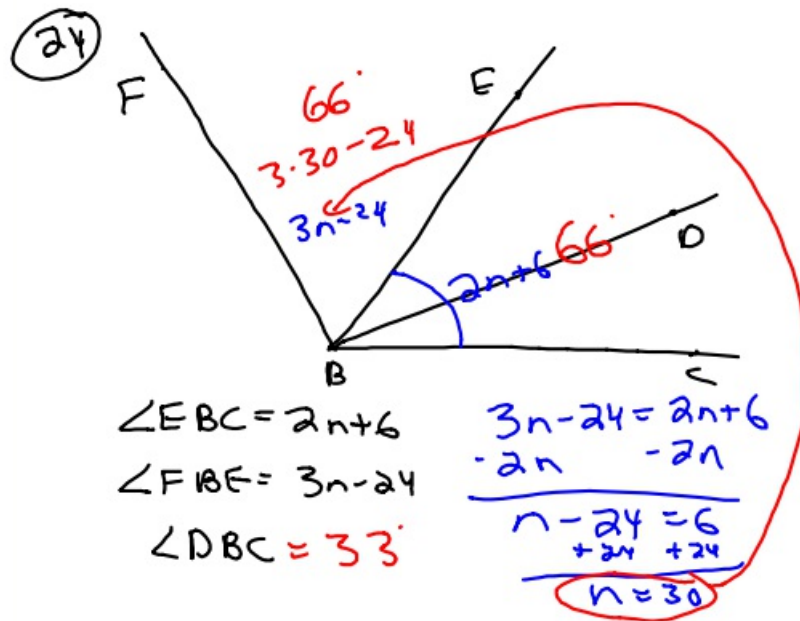
$$\begin{aligned}\angle EBD &= 4n+16 \\ \angle DBC &= 8n+12 \\ \angle EBC &= ?\end{aligned}$$

40°

$$\begin{array}{r} 8n+12 = 4n+16 \\ -4n \quad -4n \\ \hline 4n+12 = 16 \\ -12 \quad -12 \\ \hline 4n = 4 \\ n = 1 \end{array}$$

(23)





(13) $(-5, -1)$ $(-7, 7)$

$\frac{-5 + -7}{2}, \frac{-1 + 7}{2}$
 $(-6, 3)$

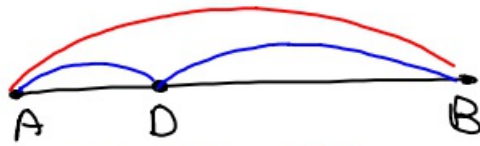
$(1, 2)$ $(3, 10)$

(17) $A = (3, 5)$ $B = (5, 15)$

What is AB?

$AB = \sqrt{\Delta x^2 + \Delta y^2}$
 $= \sqrt{2^2 + 10^2}$
 $\sqrt{4 + 100}$
 $\sqrt{104}$
 ≈ 10.2

- ⑧ D is between A and B
with $AB = 3n + 8$ & $AD = 2n - 2$.
What is BD?



$$AD + DB = AB$$

$$\downarrow \quad \downarrow$$

$$\begin{matrix} 2n-2 \\ -2n+2 \end{matrix} + BD = 3n+8 - 2n+2$$

$$BD = n + 10$$

- ⑩ What is the distance from
 $(-4, -2)$ to $(-3, -1)$

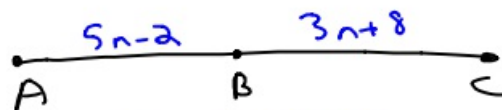
$$D = \sqrt{\Delta x^2 + \Delta y^2}$$

$$= \sqrt{1^2 + 1^2}$$

$$= \sqrt{2}$$

$$\approx 1.4$$

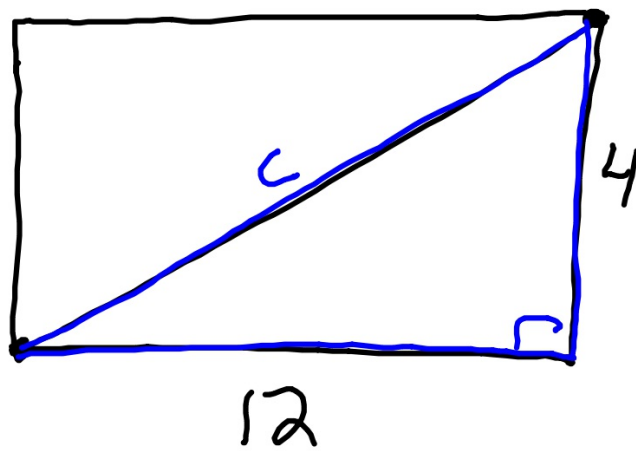
- ⑨ B is midpoint of \overline{AC} with
 $AB = 5n - 2$ and $BC = 3n + 8$.
What is n?



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

$$\begin{array}{r} 5n - 2 = 3n + 8 \\ -3n \quad -3n \\ \hline 2n - 2 = 8 \\ +2 \quad +2 \\ \hline 2n = 10 \\ \hline n = 5 \end{array}$$

16



$$12^2 + 4^2 = c^2$$

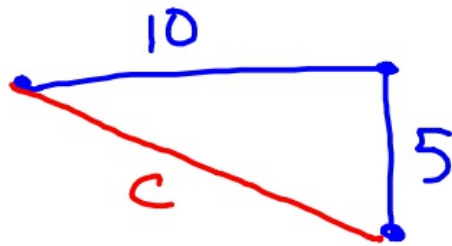
$$144 + 16 = c^2$$

$$\sqrt{160} = c$$

$$c \approx 12.6$$

New practice

- ① I walk 10 miles due East and then 5 miles due South. How far from the start am I?



$$10^2 + 5^2 = c^2$$

$$100 + 25 = c^2$$

$$\sqrt{125} = c$$

$$c \approx 11.2$$

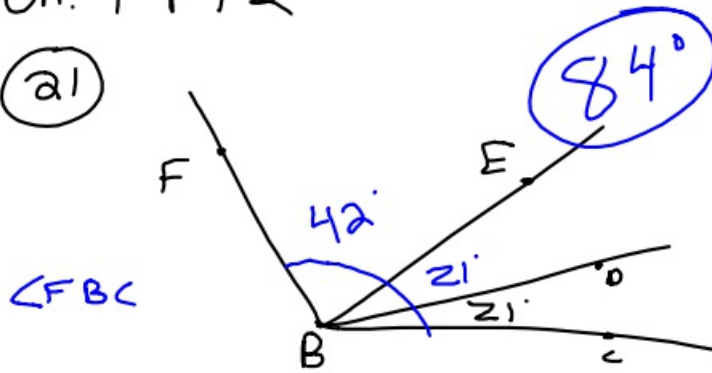
- ② What is the midpoint of \overline{AC} if $A = (1, 6)$ and $C = (5, 16)$?

$$\left(\frac{1+5}{2}, \frac{6+16}{2} \right) = (3, 11)$$

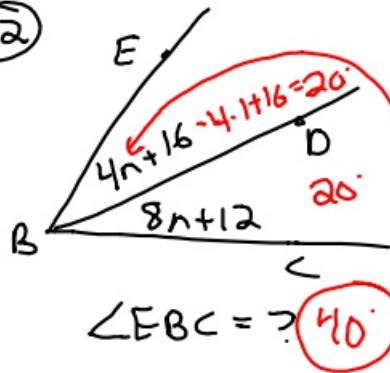
9-5-17 6th Geo

Ch. 1 PT2

(21)

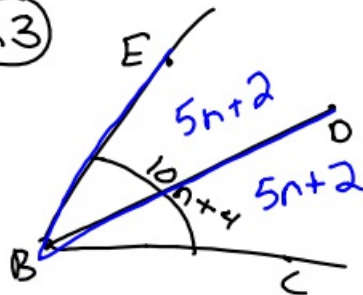


(22)



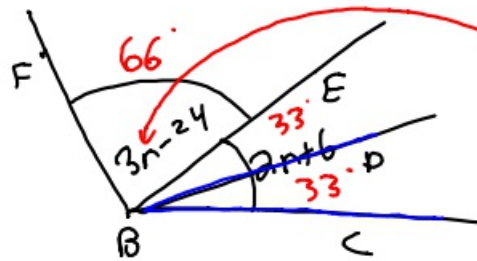
$$\begin{aligned} 4n+16 &= 8n+12 \\ -4n & \quad -4n \\ \hline 16 &= 4n+12 \\ -12 & \quad -12 \\ \hline 4 &= 4n \\ \frac{4}{4} &= \frac{4n}{4} \\ n &= 1 \end{aligned}$$

(23)



$$\angle EBD = 5n+2$$

(24)

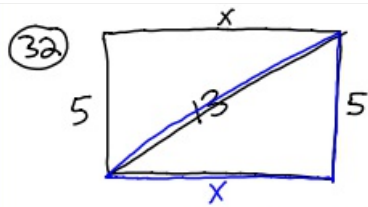


$$\angle EBC = 2n+6$$

$$\angle FBE = 3n-24$$

$$\angle DBC = ? \text{ 33}$$

$$\begin{aligned} 3n-24 &= 2n+6 \\ -2n & \quad -2n \\ \hline n-24 &= 6 \\ +24 & \quad +24 \\ \hline n &= 30 \end{aligned}$$



$$x^2 + 5^2 = 13^2$$

$$x^2 + 25 = 169$$

$$\begin{array}{r} -25 \\ -25 \end{array}$$

$$\sqrt{x^2} = \sqrt{144}$$

$$x = 12$$

27

$$\angle A + \angle B = 180^\circ$$

$$\begin{array}{c} \downarrow \quad \downarrow \\ n+40 + 9n+20 = 180 \end{array}$$

$$10n + 60 = 180$$

$$\begin{array}{r} -60 \\ -60 \end{array}$$

$$10n = 120$$

$$n = 12$$

$$\angle B = 9n + 20$$

$$= 9 \cdot 12 + 20$$

$$= 128$$

17 $A = (3, 5)$ $B = (5, 15)$

What is AB?

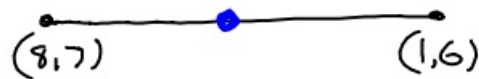
$$D = \sqrt{\Delta x^2 + \Delta y^2}$$

$$= \sqrt{2^2 + 10^2}$$

$$\sqrt{104}$$

$$\approx 10.2$$

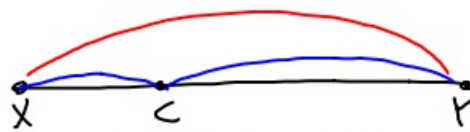
③ $(8,7)$ $(1,6)$



$$\left(\frac{8+1}{2}, \frac{7+6}{2} \right)$$

$$(4.5, 6.5)$$

④ C is between X and Y with $YC=3$, $XY=12$. Find XC?



$$XC + CY = XY$$

$$\downarrow \quad \downarrow$$

$$XC + 3 = 12$$

⑩ $(-4, -2)$ $(-3, -1)$ $-4 - -3$

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

$$\sqrt{1^2 + 1^2}$$

$$\sqrt{2}$$

$$\approx 1.4$$

New practice

① C is midpoint of \overline{AN} If

$A=(1,6)$ and $C=(3,1)$, what is

N ?

