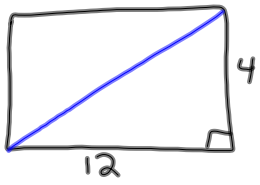
9-16-13
5th Geo

Questions from Ch 1 Pt 2

(16)



$a^2+b^2=c^2$
$12^2+4^2=c^2$
$144+16=c^2$
$\sqrt{160}=\sqrt{c^2}$
$12.6 \approx c$

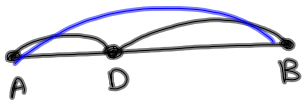
(3) midpoint (8,7) (1,6)

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

$\left(4\frac{1}{2}, 6\frac{1}{2}\right)$

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

(2)



AD + DB = AB

AD +3 -3 = 4n -3

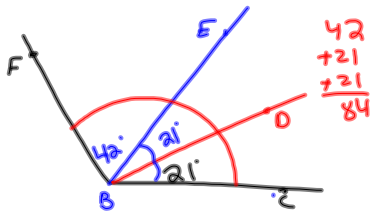
AD = 4n-3

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

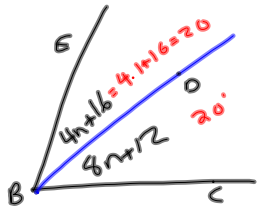
What is AB?

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

(21) $\angle DBC = 21^\circ$
$\angle FBC = ?$ 84°

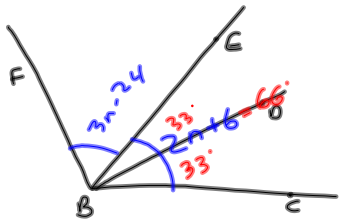


(22) $\angle EBD = 4n+16$ $\angle DBC = 8n+12$
$\angle EBC$ 40°



$8n+12 = 4n+16$
$-4n \quad -4n$
$4n+12 = 16$
$-12 \quad -12$
$4n = 4$
$n = 1$

(24)



$3n-24 = 2n+6$
$-2n \quad -2n$
$n-24 = 6$
$+24 \quad +24$
$n = 30$

$\angle DBC = ?$
33°

(26) C is between X and Y

$XC + CY = XY$
$6n-4 + 2n+1 = XY$
$8n - 3 = XY$

(7) $\angle A + \angle B = 90$ $\angle A = ?$

$n+6 + 8n-6 = 90$

$9n = 90$

$n = 10$

$\therefore \angle A = 10+6 = 16$

(8) D is between A and B.

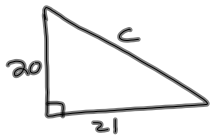
$AD + DB = AB$

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

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

$DB = n+10$

(20)



$a^2+b^2=c^2$

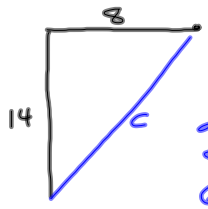
$20^2+21^2=c^2$

$400+441=c^2$

$\sqrt{841}=\sqrt{c^2}$

$c = 29$

(11)



$a^2+b^2=c^2$

$8^2+14^2=c^2$

$64+196=c^2$

$\sqrt{260}=\sqrt{c^2}$

$c \approx 16.1$

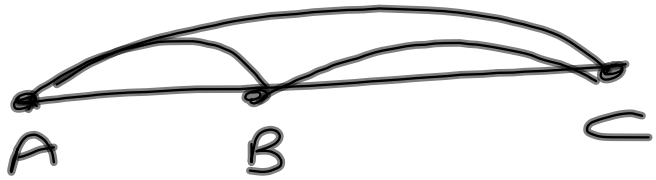
(13) $(-5,-1)$ $(-7,7)$

$\text{midpoint} = \left(\frac{-5+-7}{2}, \frac{-1+7}{2}\right)$

$\left(\frac{-12}{2}, \frac{6}{2}\right)$

$(-6,3)$

⑨ B is between A and C



$AB + BC = AC$

$AB + (n+1) = 6n$

$-n-1 \quad -n-1$

$AB = 5n - 1$

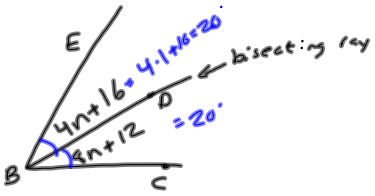
9-16-13
6th Geo

Ch. 1 P72 ?'s

② If D is between A and B with AB = 4n and BD = 3, what is AD?

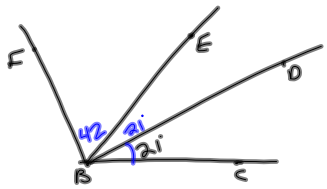
AD + DB = AB
↓ ↓ ↓
AD + 3 = 4n
−3 −3
AD = 4n − 3

㉒ ∠EBD = 4n + 16
∠DBC = 8n + 12
numerical of ∠EBC (40°)



8n + 12 = 4n + 16
−4n −4n
4n + 12 = 16
−12 −12
4n = 4
n = 1

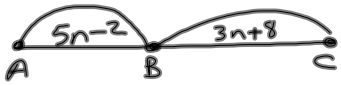
㉑ ∠DBC = 21° ∠FBC = ? (84)



① A = (3,5) (7,6)

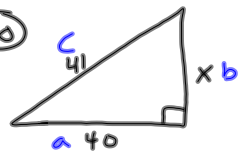
$$d = \sqrt{\Delta x^2 + \Delta y^2}$$
$$= \sqrt{4^2 + 1^2}$$
$$\sqrt{16 + 1}$$
$$\sqrt{17}$$
$$\approx 4.1$$

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



$5n-2 = 3n+8$
$-3n \quad -3n$
$2n-2 = 8$
$+2 \quad +2$
$2n = 10$
$n = 5$

(30)



$40^2 + b^2 = 41^2$
$1600 + b^2 = 1681$
$-1600 \quad -1600$
$\sqrt{b^2} = \sqrt{81}$
$b = 9$

(17) A=(3,5) B=(5,15)
What is AB?

$D = \sqrt{\Delta x^2 + \Delta y^2}$
$= \sqrt{2^2 + 10^2}$
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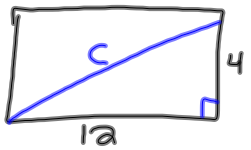
(16)

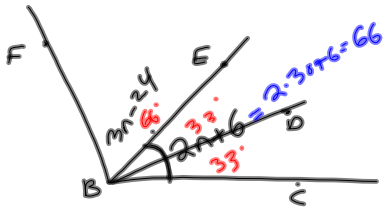


$12^2 + 4^2 = c^2$
$144 + 16 = c^2$
$\sqrt{160} = \sqrt{c^2}$
$12.6 \approx c$

(24) $\angle EBC = 2n+6$

$\angle FBE = 3n-24$

what is numerical value of $\angle DBC$? (33)



$3n-24 = 2n+6$

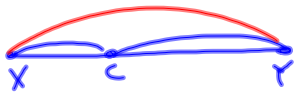
$-3n \quad -2n$

$n-24 = 6$

$+24 \quad +24$

$n = 30$

(4) C is between X and Y with $YC = 3$ and $XY = 12$; what is XC?



$XC + CY = XY$

$XC + 3 = 12$

$-3 \quad -3$

$XC = 9$

(25) If $\angle A$ and $\angle B$ are vertical angles with $\angle A = 5n-3$ and $\angle B = 3n+13$, what is $\angle A$?

$\angle A = \angle B$

$5n-3 = 3n+13$

$-3n \quad -3n$

$2n-3 = 13$

$+3 \quad +3$

$\frac{2n}{2} = \frac{16}{2}$

$n = 8$

$\therefore \angle A = 5n-3$

$= 5 \cdot 8 - 3$

$= 40 - 3$

$= 37$