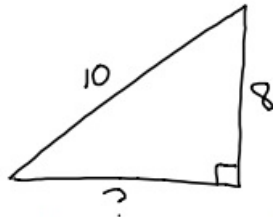


9-5-19 2nd Geo

①



$$* leg^2 + leg^2 = hyp^2$$

$$leg^2 + 8^2 = 10^2$$

$$leg^2 + 64 = 100$$

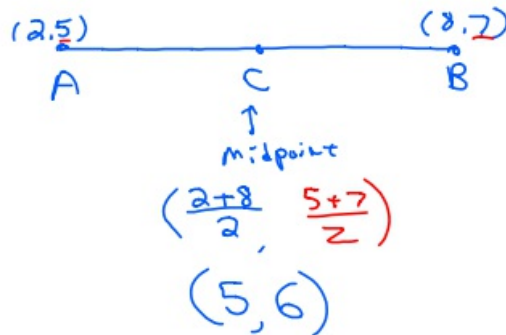
$$\begin{array}{r} -64 \quad -64 \\ \hline \end{array}$$

$$\sqrt{leg^2} = \sqrt{36}$$

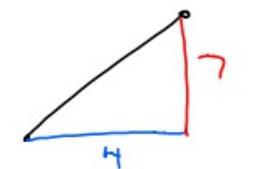
$$leg = 6$$

② On \overline{AB} , C is the midpoint.

If $A = (2, 5)$ and $B = (8, 7)$,
where C?



③ What is the distance
from $(1, 3)$ to $(5, 10)$?



$$leg^2 + leg^2 = hyp^2$$

$$4^2 + 7^2 = hyp^2$$

$$16 + 49 = hyp^2$$

$$\sqrt{65} = \sqrt{hyp^2}$$

$$8.1 \approx hyp$$

- ④ $\angle 1$ and $\angle 2$ are vertical angles. $\angle 1 = 6n - 1$ and $\angle 2 = 4n + 8$. Find $m\angle 1$.

$$\angle 1 = \angle 2$$

$$6n - 1 = 4n + 8$$

$$\begin{array}{r} -4n \quad -4n \\ \hline 2n - 1 = 8 \end{array}$$

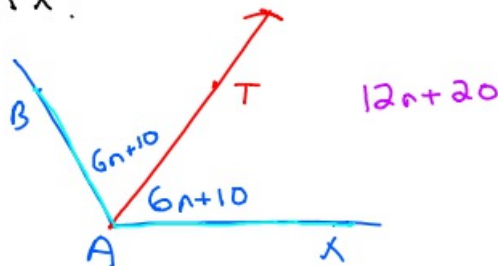
$$\begin{array}{r} +1 \quad +1 \\ \hline 2n = 9 \end{array}$$

$$2n = 9$$

$$n = 4.5$$

$$\begin{aligned} \angle 1 &= 6 \cdot n - 1 \\ &= 6 \cdot 4.5 - 1 \\ &= 27 - 1 \\ &= 26 \end{aligned}$$

- ⑤ \overrightarrow{AT} bisects $\angle BAX$.
If $\angle TAX = 6n + 10$, what is $\angle BAX$?



- ⑥ Is a \triangle with side lengths of 11, 61, 60 a right triangle?



$$leg^2 + leg^2 = hyp^2$$

$$11^2 + 60^2 = 61^2$$

$$121 + 3600 = 3721 \checkmark$$

Yes it is a right \triangle .

⑦ IF I walk 5 miles East and 6 miles South, how far from my starting point am I?

