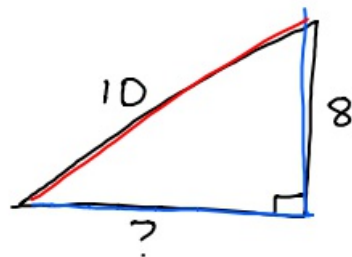


9-3-19 2nd Geo

①



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

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

$$leg^2 + 64 = 100$$

$$-64 \quad -64$$

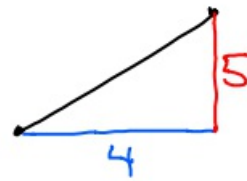
$$\sqrt{leg^2} = \sqrt{36}$$

$$leg = 6$$

② What is the distance from
(2, 5) to (6, 10)?



4 5



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

$$4^2 + 5^2 = hyp^2$$

$$16 + 25 = hyp^2$$

$$\sqrt{41} = \sqrt{hyp^2}$$

$$hyp \approx 6.4$$

③ What is the midpoint between
(2, 4) and (6, 14)?

$$\left(\frac{2+6}{2}, \frac{4+14}{2} \right)$$

$$(4, 9)$$

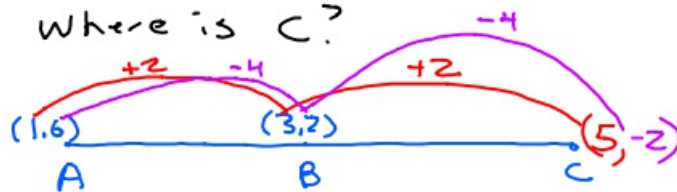
- ④ $\angle 1$ and $\angle 2$ are vertical angles. $\angle 1 = 6n - 20$ and $\angle 2 = 4n + 10$. What is n ?



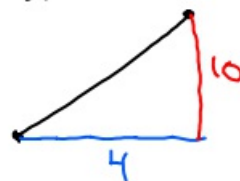
$$\begin{aligned} \angle 1 &= \angle 2 \\ 6n - 20 &= 4n + 10 \\ \underline{-4n \quad -4n} & \\ 2n - 20 &= 10 \\ \underline{+20 \quad +20} & \\ 2n &= 30 \\ \underline{\quad \quad \quad 2} & \\ n &= 15 \end{aligned}$$

- ⑤ What is the complementary angle to 40° ?
- 50°

- ⑥ B is the midpoint of \overline{AC} . If $A = (1, 6)$ and $B = (3, 2)$, where is C?



- ⑦ What is the distance from $(2, 10)$ to $(6, 20)$?



$$\begin{aligned} \text{leg}^2 + \text{leg}^2 &= \text{hyp}^2 \\ 4^2 + 10^2 &= \text{hyp}^2 \\ \sqrt{116} &= \sqrt{\text{hyp}^2} \\ \text{hyp} &\approx 10.8 \end{aligned}$$

⑧ \overrightarrow{BX} bisects $\angle ABC$. If $\angle ABX = 40^\circ$, what is $\angle ABC$? 80°

