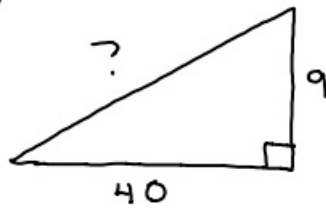


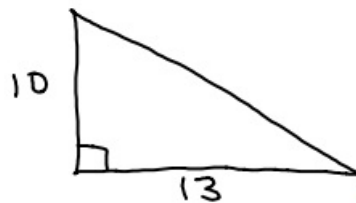
8-30-19 2nd Geo

①



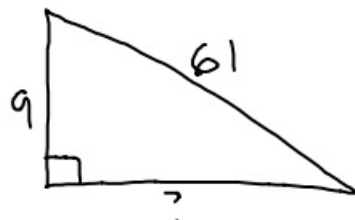
$$\begin{aligned} \text{leg}^2 + \text{leg}^2 &= \text{hyp}^2 \\ 40^2 + 9^2 &= \text{hyp}^2 \\ 1600 + 81 &= \text{hyp}^2 \\ \sqrt{1681} &= \sqrt{\text{hyp}^2} \\ \text{hyp} &= 41 \end{aligned}$$

②



$$\begin{aligned} \text{leg}^2 + \text{leg}^2 &= \text{hyp}^2 \\ 10^2 + 13^2 &= \text{hyp}^2 \\ 100 + 169 &= \text{hyp}^2 \\ \sqrt{269} &= \sqrt{\text{hyp}^2} \\ \text{hyp} &\approx 16.4 \end{aligned}$$

③

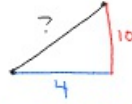


$$\begin{aligned} \text{leg}^2 + \text{leg}^2 &= \text{hyp}^2 \\ 9^2 + \text{leg}^2 &= 61^2 \\ 81 + \text{leg}^2 &= 3721 \\ -81 & \quad -81 \\ \hline \sqrt{\text{leg}^2} &= \sqrt{3640} \\ \text{leg} &\approx 60.3 \end{aligned}$$

- ④ What is the distance from (1, 4) to (5, 14)?

$$\begin{pmatrix} 1 & 4 \\ 5 & 14 \end{pmatrix}$$

4 10



$$\begin{aligned} \text{leg}^2 + \text{leg}^2 &= \text{hyp}^2 \\ 4^2 + 10^2 &= \text{hyp}^2 \\ 16 + 100 &= \text{hyp}^2 \\ \sqrt{116} &= \text{hyp} \\ \text{hyp} &= 10.8 \end{aligned}$$

- ⑤ If $A = (2, 3)$ and $B = (9, 0)$, what is AB ?

$$\begin{pmatrix} 2 & 3 \\ 9 & 0 \end{pmatrix}$$

7 3



$$\begin{aligned} \text{leg}^2 + \text{leg}^2 &= \text{hyp}^2 \\ 7^2 + 3^2 &= \text{hyp}^2 \\ 49 + 9 &= \text{hyp}^2 \\ \sqrt{58} &= \text{hyp} \\ \text{hyp} &= 7.6 \end{aligned}$$

- ⑥ What is the midpoint between (2, 10) and (4, 18)?

$$\begin{array}{ccc} \overbrace{(2, 10) \quad (3, 14) \quad (4, 18)} \\ \left(\frac{2+4}{2}, \frac{10+18}{2} \right) \\ \underline{(3, 14)} \end{array}$$

- ⑦ B is the midpoint on \overline{AC} . If $A = (2, 3)$ and $B = (4, 6)$, what is C?

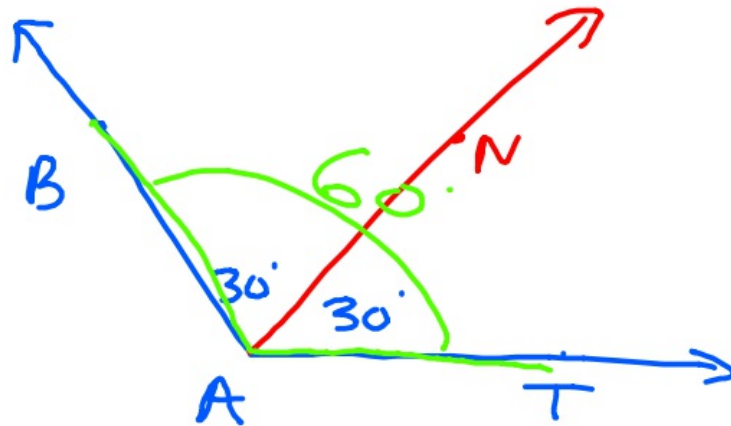


- ⑧ $\angle 1$ and $\angle 2$ are vertical angles. $\angle 1 = 4n + 6$ and $\angle 2 = 2n + 20$. What is $\angle 1$?

$$\begin{aligned} \angle 1 &= \angle 2 \\ 4n + 6 &= 2n + 20 \\ -2n & \quad -2n \\ \hline 2n + 6 &= 20 \\ -6 & \quad -6 \\ \hline 2n &= 14 \\ n &= 7 \end{aligned}$$

$$\begin{aligned} \angle 1 &= 4n + 6 \\ 4 \cdot 7 + 6 \\ 28 + 6 \\ \underline{34} \end{aligned}$$

- ⑨ \vec{AN} bisects $\angle BAT$.
If $\angle BAN = 30^\circ$, what is $\angle BAT$? 60°



- ⑩ \vec{NT} bisects $\angle AND$.
If $\angle AND = 4n + 10$, what is $\angle ANT$? $2n + 5$

