

9-10-19 2<sup>nd</sup> Geo

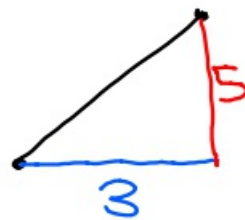
- ① Is a triangle that has sides of 3, 7, and 9 a right triangle? Explain.

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

$$3^2 + 7^2 = 9^2$$

$$9 + 49 = 81 ? \text{ NO}$$

- ② Distance from  $(-1, 3)$  to  $(2, 8)$ .



$$3^2 + 5^2 = hyp^2$$

$$9 + 25 = hyp^2$$

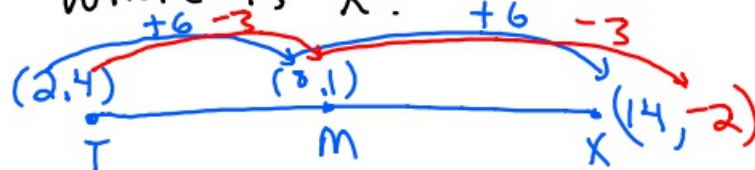
$$\sqrt{34} = hyp$$

$$5.8 \approx hyp$$

- ③ On  $\overline{TX}$ , M is the midpoint.

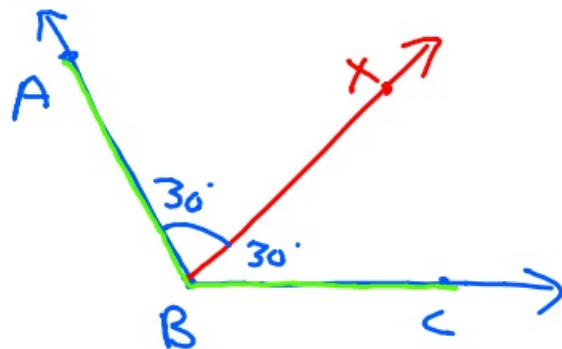
If  $T = (2, 4)$  and  $M = (8, 1)$ ,



Where is X?



- ④  $\therefore$  therefore  
 $\cong$  Congruent  
 $\approx$  approximately

- ⑤  $\rightarrow$  BX bisects  $\angle ABC$ . If  $\angle XBA = 30^\circ$ , what is measurement of  $\angle ABC$ ?  $60^\circ$



- ⑥ Vertical  $\angle$ 's :  =  
 Supplementary  $\angle$ 's : Add up to  $180^\circ$   
 Linear pair :  Add up to  $180^\circ$   
 Complementary  $\angle$ 's : Add up to  $90^\circ$

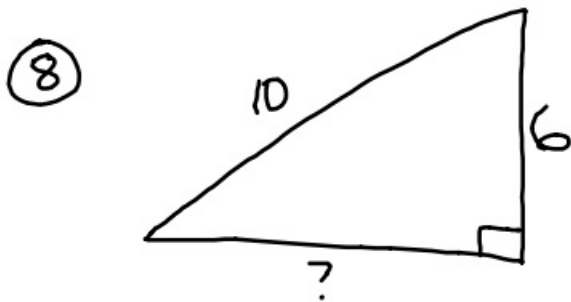
⑦  $\angle 1$  and  $\angle 2$  are complementary angles.  $\angle 1 = 4n + 10$  and  $\angle 2 = 6n + 10$ . What is the measurement of  $\angle 1$ ?

$$\angle 1 + \angle 2 = 90^\circ$$

$$4n + 10 + 6n + 10 = 90^\circ$$

$$\begin{array}{r} 10n + 20 = 90^\circ \\ -20 \quad -20 \\ \hline 10n = 70 \\ n = 7 \end{array}$$

$$\begin{aligned} \angle 1 &= 4n + 10 \\ &= 4 \cdot 7 + 10 \\ &= 38 \end{aligned}$$



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

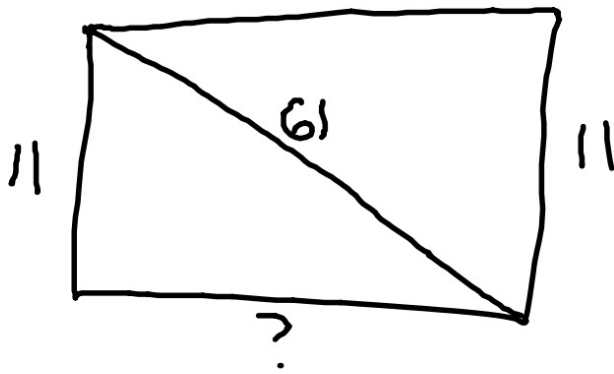
$$leg^2 + 6^2 = 10^2$$

$$leg^2 + 36 = 100$$

$$\begin{array}{r} -36 \quad -36 \\ \hline \sqrt{leg^2} = \sqrt{64} \end{array}$$

$$leg = 8$$

9



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

$$11^2 + leg^2 = 61^2$$

$$121 + leg^2 = 3721$$

$$\begin{array}{r} - 121 \qquad \qquad - 121 \\ \hline \end{array}$$

$$\sqrt{leg^2} = \sqrt{3600}$$

$$leg = 60$$