

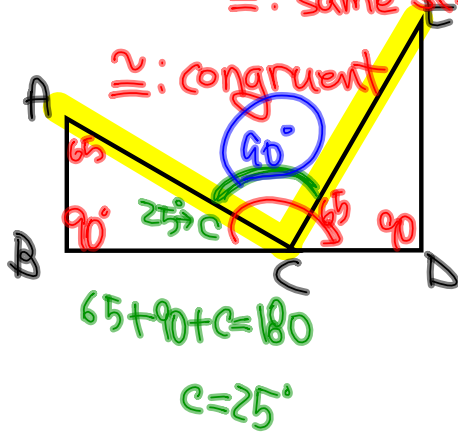
How do we know if 2 lines are $\perp$? perpendicular

Do Now

$\sim$: same shape (similar)

$\cong$: same size

$\cong$: congruent



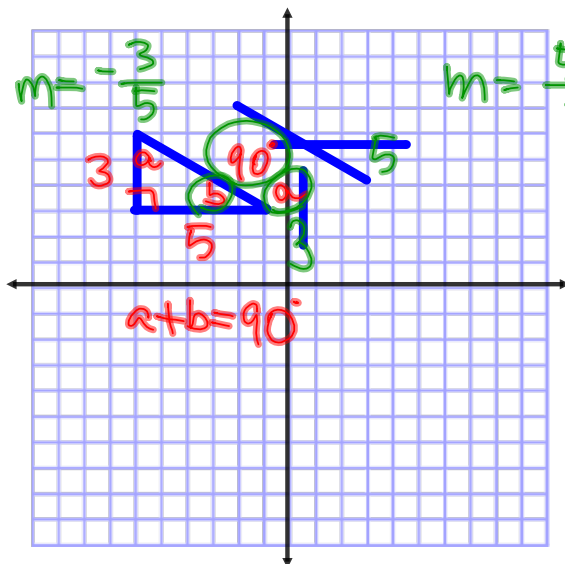
Given: $\overline{BCD}$

$$m\angle A = 65$$

$$m\angle D = 90$$

$$\triangle ABC \cong \triangle CDE$$

Find $m\angle ACE$.



When 2 lines are $\perp$,

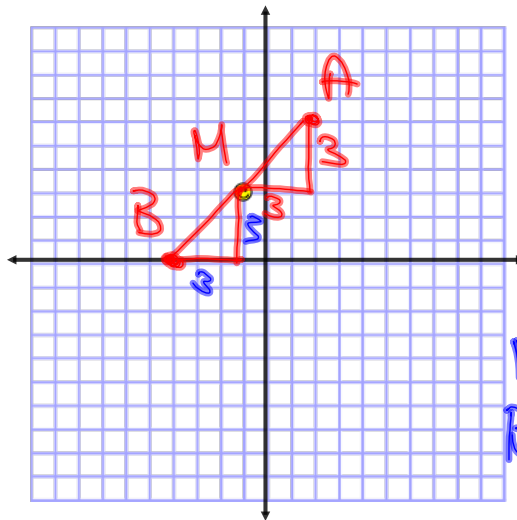
$$k \perp l, m_k = -\frac{1}{m_l}$$

$$m_k \cdot m_l = -1$$

Mid point.

When $A(2, 6)$ & $B(-4, 0)$

Find the midpoint of $\overline{AB}$.



$$\begin{aligned} a^2 + b^2 &= c^2 \\ 3^2 + 3^2 &= AM^2 \\ 9 + 9 &= AM^2 \\ 3\sqrt{2} &= \sqrt{18} = AM \end{aligned}$$

$$BM = 3\sqrt{2}$$

M is a midpoint of $\overline{AB}$
Because $AM = BM$.