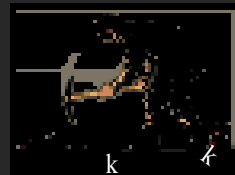


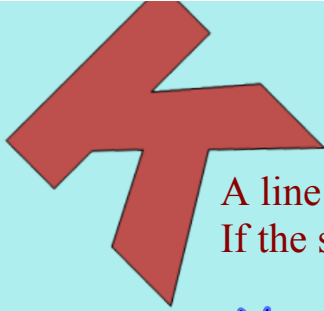
"Eindinging k"



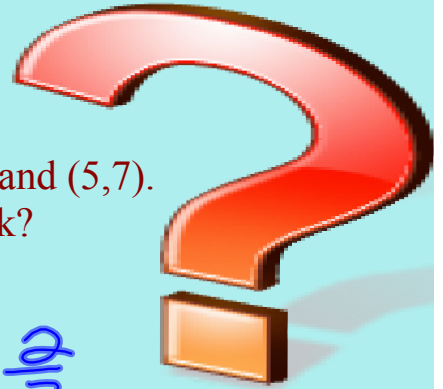
y with the Slope formula!

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$





A line passes through the points (2, k) and (5, 7).  
If the slope is  $\frac{2}{3}$ , what is the value of k?



1st  $(x_1, y_1)$  and  $(x_2, y_2)$   $m = \frac{2}{3}$   
 $(2, k)$   $(5, 7)$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{2}{3} = \frac{7 - k}{5 - 2}$$

$$3(7 - k) = 6$$
$$21 - 3k = 6 - 21$$
$$\frac{-3k}{3} = \frac{-15}{3}$$
$$k = 5$$

✓



A line passes through the points  $(-7, -8)$  and  $(k, -4)$ .  
If the slope is  $\frac{-4}{3}$ , what is the value of  $k$ ?

$$\begin{matrix} x_1 & y_1 & & x_2 & y_2 \\ (-7, -8) & & (k, -4) & & \end{matrix} \quad m = \frac{-4}{3}$$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$-\frac{4}{3} = \frac{-4 - (-8)}{k - (-7)} \quad \frac{-4 - -8}{k - -7}$$

$$-\frac{4}{3} = \frac{4}{k+7}$$

$$-4(k+7) = 12$$

$$-4k - 28 = 12 + 28$$

$$\frac{-4k}{-4} = \frac{40}{-4}$$

$$k = -10$$

A line passes through the points  $(2, k)$  and  $(k, -3)$ .  
 If the slope is perpendicular to  $1/2$ , what is the  
 value of  $k$ ?

opp rec.

$$\begin{matrix} x_1 & y_1 & & x_2 & y_2 \\ (2 & k) & & (k & -3) \end{matrix}$$

$$m = -\frac{2}{1}$$



$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$-\frac{2}{1} = \frac{-3 - k}{k - 2}$$

$$1(-3 - k) = -2(k - 2)$$

$$-3 - k = -2k + 4$$

$$-k + 2k = 4 + 3$$

$$k = 7$$

$$k = \#$$



A line passes through the points  $(2k, 11)$  and  $(k, k+3)$ .  
If the slope is parallel to  $\frac{3}{5}$ , what is the value of  $k$ ?





