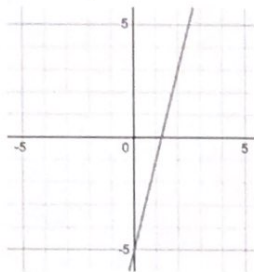


20 in 20: Week 5 – July 30th

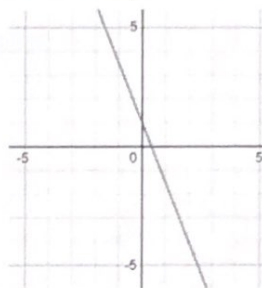
Ex. 1 What is the slope of the line?

$$m = 4$$



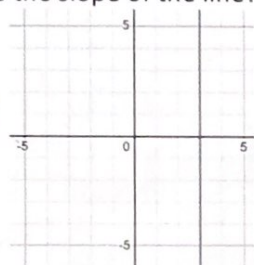
Ex. 2 What is the slope of the line?

$$m = -5/2$$



Ex. 3 What is the slope of the line?

$$m = \text{undefined}$$



Ex. 4 Find the measure of angle d.

$$m\angle d = 70^\circ$$

Ex. 5 Find the measure of angle c.

$$180 - 70 \\ m\angle c = 110^\circ$$

Ex. 6 Find the measure of angle e.

$$m\angle e = 70^\circ$$

Ex. 7 Simplify the following:

$$d^{15} \cdot d^{10} = d^{25}$$

Ex. 8 Simplify the following:

$$\frac{d^{15}}{d^{10}} = d^5$$

Ex. 9 Simplify the following:

$$(d^{15})^{10} = d^{150}$$

Ex. 10 Simplify the following:

$$\frac{d^{10}}{d^{15}} = \frac{1}{d^5}$$

Ex. 11 Two angles are supplementary. One angle measures 14° . What is the other angle?

$$180 - 14 = 166^\circ$$

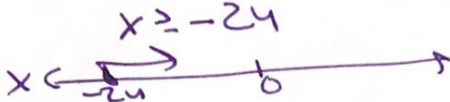
Ex. 12 Two angles are complimentary. One angle measures 14° . What is the other angle?

$$90 - 14 = 76^\circ$$

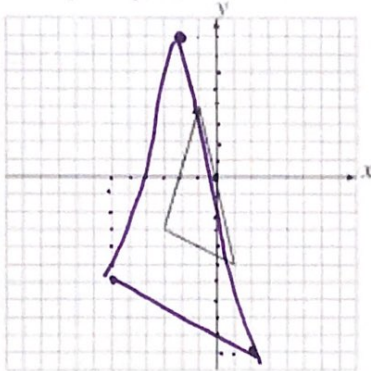
Ex. 13 Solve the equation:

$$\begin{aligned} -2(x+5) &= 15 \\ -2x - 10 &= 15 \\ -2x &= 25 \\ \boxed{x &= -12.5} \end{aligned}$$

Ex. 15 Solve and graph the inequality.

$$\begin{aligned} -\frac{2}{3}x - 5 &\leq 11 \\ -\frac{2}{3}x &\leq 16 \\ x &\geq -24 \end{aligned}$$


Ex. 17 Dilate the triangle by a scale factor of 2 around the origin.



Ex. 19 Simplify the expression.


$$\frac{50x^4y - 3z^{50}}{75x^{12}y^9z^{50}}$$

$$\boxed{\frac{2x^{10}y^6}{3}}$$

Ex. 14 Solve the equation:

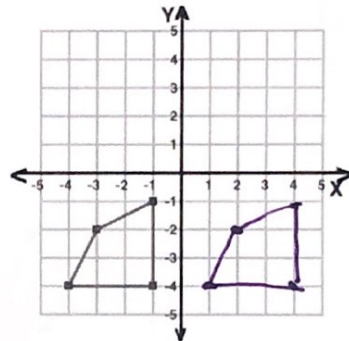
$$\begin{aligned} \frac{x+4}{3} &= -10 \\ x+4 &= -30 \\ \boxed{x &= -34} \end{aligned}$$

Ex. 16 A scale drawing of a square park is 36 in². The actual park is 10,000 yd². What is the scale factor?



$$6x = 100 \quad x = \frac{100}{6} = \frac{50}{3}$$

Ex. 18 Translate the figure 5 units to the right and 4 units up.



Ex. 20 Solve the system of equations.

$$\begin{aligned} y &= 3x - 5 \\ y &= 5x + 11 \\ 3x - 5 &= 5x + 11 \\ -4x &= 16 \\ x &= -4 \\ y &= -29 \end{aligned}$$

$$\boxed{(-4, -29)}$$