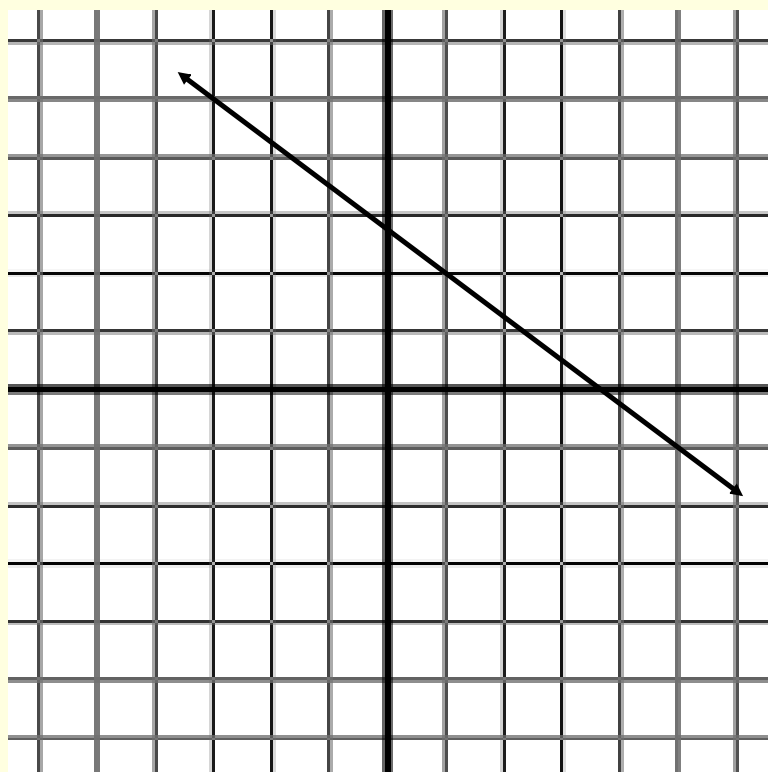


3.2 Equations of lines: The Basics

The Equation of a Line



$$y = mx + b \text{ or } Ax + By + C = 0$$

Slope -
intercept
form

Standard
Form

$$y - y_1 = m(x - x_1)$$

point slope form

Punchline 7.16 #1

$$y - y_1 = m(x - x_1)$$

(3, -4) and $m = 2$

$$y - (-4) = 2(x - 3)$$

$$y + 4 = 2(x - 3)$$

Punchline 7.16 #6

$$y - y_1 = m(x - x_1)$$

(8, 5) and $m = 1/4$

$$y - 5 = \frac{1}{4}(x - 8)$$

$$y - 5 = \frac{1}{4}x - 2$$

$$y = \frac{1}{4}x + 3$$

$$y = mx + b$$

$$5 = \frac{1}{4}(8) + b$$

$$5 = 2 + b$$

$$\begin{array}{r} -2 \\ \hline 3 = b \end{array}$$

$$y = \frac{1}{4}x + 3$$

Punchline 7.16 #11

$$y - y_1 = m(x - x_1)$$

$(-5, 2)$ and $m = 2/5$

$$y - 2 = \frac{2}{5}(x - (-5))$$

$$y - 2 = \frac{2}{5}x + 2$$

$$5(y = \frac{2}{5}x + 4)$$

$$5y = 2x + 20$$

$$-2x + 5y = 20$$

$$Ax + By = C$$

Standard Form

$$\frac{2}{5}(\frac{2}{5}) =$$

What Do You Call Two Birds
Relaxing In the Midday Sun?

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
	B	A	S	K	I	N		R	O	B	I	N	S	

Punchline 7.17 #7

$$m = \frac{-8 + (+6)}{-3 + (+1)} = \frac{-2}{-2} = 1$$

$(-1, -6)$ and $(-3, -8)$

$$m = 1$$

$$y = mx + b$$

$$-6 = 1(-1) + b$$

$$\begin{array}{r} -6 = -1 + b \\ +1 \quad +1 \\ \hline \end{array}$$

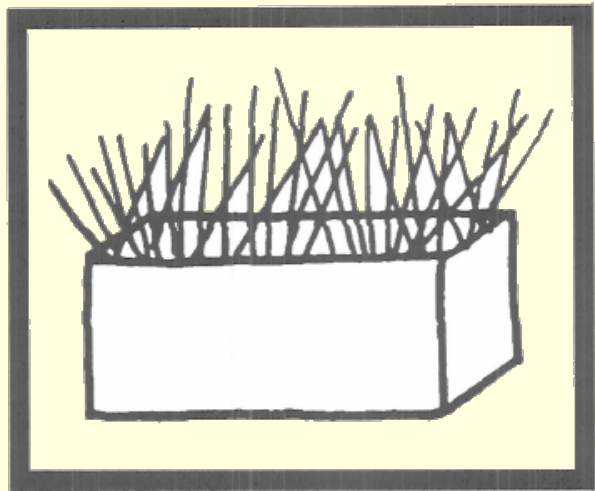
$$-5 = b$$

$$y = x - 5$$

What Is The Title of This Picture?

Write the equation of the line through the two given points, then find your answer in the answer columns. Each time the exercise number appears in the code, write the letter of the answer above it.

Coded Title: S P A R E P A R T S
 2 12 4 11 7 12 4 11 6 2
F O R A P O R C U P I N E
 9 5 11 4 12 5 11 8 1 12 3 10 7



Homework:

pgs. 96-97 3E (1-4,7)

pg. 99 3F (1-4)