Typeset by Jonathan Rufo Bacolod using LaTeX

Activity 1.6.1: Describing Graphs of Linear Equations Using the Slope and Intercepts

Total points = 65

A. Answers

1. $y = -3x - 5$ ✓
$m = -3$ ✓, Falling ✓

2. $6x + 3y = 9$ ✓
$6x - 6x + 3y = -6x + 9$ ✓
$\frac{3y}{3} = \frac{-6x}{3} + \frac{9}{3}$ ✓
$y = -2x + 3$ ✓
$m = -2$ ✓, Falling ✓

3. $-4y - 8 = 0$ ✓
$-4y - 8 + 8 = 0 + 8$ ✓
$\frac{-4y}{-4} = \frac{8}{-4}$ ✓
$y = -2$ ✓
$m = 0$ ✓, Horizontal ✓

4. $x = -3$ ✓
$m = undefined$ ✓, Vertical ✓

5. $y = 3x - 2$ ✓
$m = 3$ ✓, Rising ✓

B. Answers

1. $6x + 3y = 12$ ✓
$6x + 3(0) = 12$ ✓
$\frac{6x}{6} = \frac{12}{6}$ ✓
$x = 2$ ✓
$\therefore a = 2$ ✓
$6(0) + 3y = 12$ ✓
$\frac{3y}{3} = \frac{12}{3}$ ✓
$y = 4$ ✓
$\therefore b = 4$ ✓
trend: Falling ✓

2. $-5y - 10 = 0$ ✓
$-5(0) - 10 = 0$ ✓
$-10 = 0$ ✓
$\therefore a = undefined$ ✓
$-5y - 10 + 10 = 10$ ✓
$\frac{-5y}{-5} = \frac{10}{-5}$ ✓
$y = -2$ ✓
$\therefore b = -2$ ✓
trend: Horizontal ✓

3. $x = 7$ ✓
$\therefore a = 7$ ✓
$0 = 7$ ✓
$\therefore b = undefined$ ✓
trend: Vertical ✓

4. $4y - 16 = 0$ ✓
$4(0) - 16 = 0$ ✓
$-16 = 0$ ✓
$\therefore a = undefined$ ✓
$4y - 16 = 0$ ✓
$4y - 16 + 16 = 0 + 16$ ✓
$\frac{4y}{4} = \frac{16}{4}$ ✓
$y = 4$ ✓
$\therefore b = 4$ ✓
trend: Horizontal ✓

5. $y = 4x - 12$ ✓
$0 = 4x - 12$ ✓
$0 - 4x = 4x - 4x - 12$ ✓
$\frac{-4x}{-4} = \frac{-12}{-4}$ ✓
$x = 3$ ✓
$\therefore a = 3$ ✓
$y = 4(0) - 12$ ✓
$y = -12$ ✓
$\therefore b = -12$ ✓
trend: Rising ✓

Typeset by Jonathan Rufo Bacolod using LaTeX

Activity 1.6.1: Describing Graphs of Linear Equations Using the Slope and Intercepts

Total points = 65

A. Answers

1. $y = -3x - 5$ ✓
$m = -3$ ✓, Falling ✓

2. $6x + 3y = 9$ ✓
$6x - 6x + 3y = -6x + 9$ ✓
$\frac{3y}{3} = \frac{-6x}{3} + \frac{9}{3}$ ✓
$y = -2x + 3$ ✓
$m = -2$ ✓, Falling ✓

3. $-4y - 8 = 0$ ✓
$-4y - 8 + 8 = 0 + 8$ ✓
$\frac{-4y}{-4} = \frac{8}{-4}$ ✓
$y = -2$ ✓
$m = 0$ ✓, Horizontal ✓

4. $x = -3$ ✓
$m = undefined$ ✓, Vertical ✓

5. $y = 3x - 2$ ✓
$m = 3$ ✓, Rising ✓

B. Answers

1. $6x + 3y = 12$ ✓
$6x + 3(0) = 12$ ✓
$\frac{6x}{6} = \frac{12}{6}$ ✓
$x = 2$ ✓
$\therefore a = 2$ ✓
$6(0) + 3y = 12$ ✓
$\frac{3y}{3} = \frac{12}{3}$ ✓
$y = 4$ ✓
$\therefore b = 4$ ✓
trend: Falling ✓

2. $-5y - 10 = 0$ ✓
$-5(0) - 10 = 0$ ✓
$-10 = 0$ ✓
$\therefore a = undefined$ ✓
$-5y - 10 + 10 = 10$ ✓
$\frac{-5y}{-5} = \frac{10}{-5}$ ✓
$y = -2$ ✓
$\therefore b = -2$ ✓
trend: Horizontal ✓

3. $x = 7$ ✓
$\therefore a = 7$ ✓
$0 = 7$ ✓
$\therefore b = undefined$ ✓
trend: Vertical ✓

4. $4y - 16 = 0$ ✓
$4(0) - 16 = 0$ ✓
$-16 = 0$ ✓
$\therefore a = undefined$ ✓
$4y - 16 = 0$ ✓
$4y - 16 + 16 = 0 + 16$ ✓
$\frac{4y}{4} = \frac{16}{4}$ ✓
$y = 4$ ✓
$\therefore b = 4$ ✓
trend: Horizontal ✓

5. $y = 4x - 12$ ✓
$0 = 4x - 12$ ✓
$0 - 4x = 4x - 4x - 12$ ✓
$\frac{-4x}{-4} = \frac{-12}{-4}$ ✓
$x = 3$ ✓
$\therefore a = 3$ ✓
$y = 4(0) - 12$ ✓
$y = -12$ ✓
$\therefore b = -12$ ✓
trend: Rising ✓

Typeset by Jonathan Rufo Bacolod using LaTeX

Activity 1.6.1: Describing Graphs of Linear Equations Using the Slope and Intercepts

Total points = 65

A. Answers

1. $y = -3x - 5$ ✓
$m = -3$ ✓, Falling ✓

2. $6x + 3y = 9$ ✓
$6x - 6x + 3y = -6x + 9$ ✓
$\frac{3y}{3} = \frac{-6x}{3} + \frac{9}{3}$ ✓
$y = -2x + 3$ ✓
$m = -2$ ✓, Falling ✓

3. $-4y - 8 = 0$ ✓
$-4y - 8 + 8 = 0 + 8$ ✓
$\frac{-4y}{-4} = \frac{8}{-4}$ ✓
$y = -2$ ✓
$m = 0$ ✓, Horizontal ✓

4. $x = -3$ ✓
$m = undefined$ ✓, Vertical ✓

5. $y = 3x - 2$ ✓
$m = 3$ ✓, Rising ✓

B. Answers

1. $6x + 3y = 12$ ✓
$6x + 3(0) = 12$ ✓
$\frac{6x}{6} = \frac{12}{6}$ ✓
$x = 2$ ✓
$\therefore a = 2$ ✓
$6(0) + 3y = 12$ ✓
$\frac{3y}{3} = \frac{12}{3}$ ✓
$y = 4$ ✓
$\therefore b = 4$ ✓
trend: Falling ✓

2. $-5y - 10 = 0$ ✓
$-5(0) - 10 = 0$ ✓
$-10 = 0$ ✓
$\therefore a = undefined$ ✓
$-5y - 10 + 10 = 10$ ✓
$\frac{-5y}{-5} = \frac{10}{-5}$ ✓
$y = -2$ ✓
$\therefore b = -2$ ✓
trend: Horizontal ✓

3. $x = 7$ ✓
$\therefore a = 7$ ✓
$0 = 7$ ✓
$\therefore b = undefined$ ✓
trend: Vertical ✓

4. $4y - 16 = 0$ ✓
$4(0) - 16 = 0$ ✓
$-16 = 0$ ✓
$\therefore a = undefined$ ✓
$4y - 16 = 0$ ✓
$4y - 16 + 16 = 0 + 16$ ✓
$\frac{4y}{4} = \frac{16}{4}$ ✓
$y = 4$ ✓
$\therefore b = 4$ ✓
trend: Horizontal ✓

5. $y = 4x - 12$ ✓
$0 = 4x - 12$ ✓
$0 - 4x = 4x - 4x - 12$ ✓
$\frac{-4x}{-4} = \frac{-12}{-4}$ ✓
$x = 3$ ✓
$\therefore a = 3$ ✓
$y = 4(0) - 12$ ✓
$y = -12$ ✓
$\therefore b = -12$ ✓
trend: Rising ✓

Typeset by Jonathan Rufo Bacolod using LaTeX

Activity 1.6.1: Describing Graphs of Linear Equations Using the Slope and Intercepts

Total points = 65

A. Answers

1. $y = -3x - 5$ ✓
$m = -3$ ✓, Falling ✓

2. $6x + 3y = 9$ ✓
$6x - 6x + 3y = -6x + 9$ ✓
$\frac{3y}{3} = \frac{-6x}{3} + \frac{9}{3}$ ✓
$y = -2x + 3$ ✓
$m = -2$ ✓, Falling ✓

3. $-4y - 8 = 0$ ✓
$-4y - 8 + 8 = 0 + 8$ ✓
$\frac{-4y}{-4} = \frac{8}{-4}$ ✓
$y = -2$ ✓
$m = 0$ ✓, Horizontal ✓

4. $x = -3$ ✓
$m = undefined$ ✓, Vertical ✓

5. $y = 3x - 2$ ✓
$m = 3$ ✓, Rising ✓

B. Answers

1. $6x + 3y = 12$ ✓
$6x + 3(0) = 12$ ✓
$\frac{6x}{6} = \frac{12}{6}$ ✓
$x = 2$ ✓
$\therefore a = 2$ ✓
$6(0) + 3y = 12$ ✓
$\frac{3y}{3} = \frac{12}{3}$ ✓
$y = 4$ ✓
$\therefore b = 4$ ✓
trend: Falling ✓

2. $-5y - 10 = 0$ ✓
$-5(0) - 10 = 0$ ✓
$-10 = 0$ ✓
$\therefore a = undefined$ ✓
$-5y - 10 + 10 = 10$ ✓
$\frac{-5y}{-5} = \frac{10}{-5}$ ✓
$y = -2$ ✓
$\therefore b = -2$ ✓
trend: Horizontal ✓

3. $x = 7$ ✓
$\therefore a = 7$ ✓
$0 = 7$ ✓
$\therefore b = undefined$ ✓
trend: Vertical ✓

4. $4y - 16 = 0$ ✓
$4(0) - 16 = 0$ ✓
$-16 = 0$ ✓
$\therefore a = undefined$ ✓
$4y - 16 = 0$ ✓
$4y - 16 + 16 = 0 + 16$ ✓
$\frac{4y}{4} = \frac{16}{4}$ ✓
$y = 4$ ✓
$\therefore b = 4$ ✓
trend: Horizontal ✓

5. $y = 4x - 12$ ✓
$0 = 4x - 12$ ✓
$0 - 4x = 4x - 4x - 12$ ✓
$\frac{-4x}{-4} = \frac{-12}{-4}$ ✓
$x = 3$ ✓
$\therefore a = 3$ ✓
$y = 4(0) - 12$ ✓
$y = -12$ ✓
$\therefore b = -12$ ✓
trend: Rising ✓