

# Activity 1.5.3: Graphs of Linear Equations

Total points = 86

## A. Answers

1.  $2x + 5y = 10$  ✓

Let  $y = 0$  : ✓

$2x + 5(0) = 10$  ✓

$\frac{2x}{2} = \frac{10}{2}$  ✓

$x = 5$  ✓

∴  $a = 5$  ✓

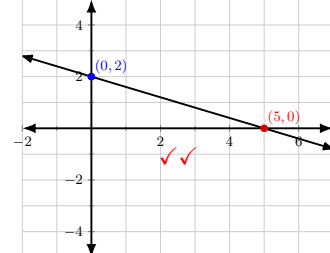
Let  $x = 0$  : ✓

$2(0) + 5y = 10$  ✓

$\frac{5y}{5} = \frac{10}{5}$  ✓

$y = 2$  ✓

∴  $b = 2$  ✓



2.  $4x - 3y = 12$  ✓

Let  $y = 0$  : ✓

$4x - 3(0) = 12$  ✓

$\frac{4x}{4} = \frac{12}{4}$  ✓

$x = 3$  ✓

∴  $a = 3$  ✓

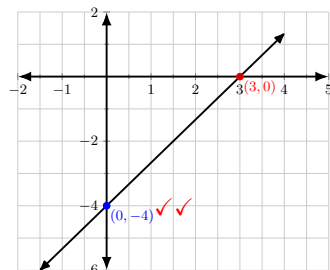
Let  $x = 0$  : ✓

$4(0) - 3y = 12$  ✓

$\frac{-3y}{-3} = \frac{12}{-3}$  ✓

$y = -4$  ✓

∴  $b = -4$  ✓



3.  $8y = 4x + 16$  ✓

Let  $y = 0$  : ✓

$8(0) = 4x + 16$  ✓

$0 - 4x = 4x - 4x + 16$  ✓

$\frac{-4x}{-4} = \frac{16}{-4}$  ✓

$x = -4$  ✓

∴  $a = -4$  ✓

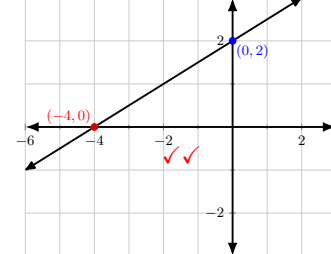
Let  $x = 0$  : ✓

$8y = 4(0) + 16$  ✓

$\frac{8y}{8} = \frac{16}{8}$  ✓

$y = 2$  ✓

∴  $b = 2$  ✓



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

Let  $y = 0$  : ✓

$\frac{x}{-3} + \frac{0}{3} = 1$  ✓

$-3 \left[ \frac{x}{-3} = 1 \right]$  ✓

$x = -3$  ✓

∴  $a = 3$  ✓

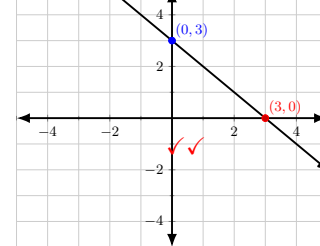
Let  $x = 0$  : ✓

$\frac{0}{-3} + \frac{y}{3} = 1$  ✓

$3 \left[ \frac{y}{3} = 1 \right]$  ✓

$y = 3$  ✓

∴  $b = 3$  ✓



## B. Answers

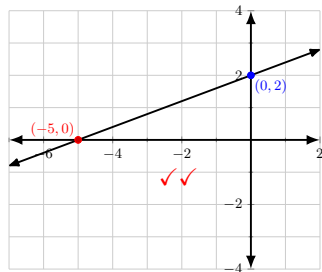
1.  $2x - 5y = -10$  ✓

$2x - 2x - 5y = -2x - 10$  ✓

$\frac{-5y}{-5} = \frac{-2x}{-5} - \frac{10}{-5}$  ✓

$y = \frac{2}{5}x + 2$  ✓

$m = \frac{2}{5}$  ✓,  $b = 2$  ✓



2.  $2(y - x) = 4$  ✓

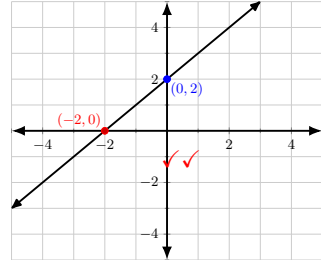
$2y - 2x = 4$  ✓

$2y - 2x + 2x = 2x + 4$  ✓

$\frac{2y}{2} = \frac{2x}{2} + \frac{4}{2}$  ✓

$y = x + 2$  ✓

$m = 1$  ✓,  $b = 2$  ✓



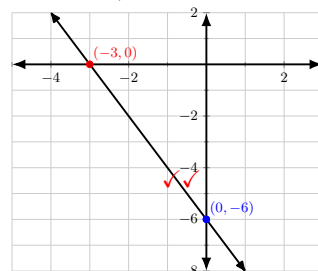
3.  $-2x = y + 6$  ✓

$-2x + 2x - y = y - y + 2x + 6$  ✓

$-1[-y = 2x + 6]$  ✓

$y = -2x - 6$  ✓

$m = -2$  ✓,  $b = -6$  ✓



4.  $7x - 10 + 5y = 0$  ✓

$7x - 7x - 10 + 10 + 5y = -7x + 10$  ✓

$\frac{5y}{5} = \frac{-7x}{5} + \frac{10}{5}$  ✓

$y = -\frac{7}{5}x + 2$  ✓

$m = -\frac{7}{5}$  ✓,  $b = 2$  ✓

