

Module 5 Lesson 3

TT 3. Possible solutions

a. *Foundations and Pre-calculus Mathematics 10* (Pearson), questions 4.b), 4.c), 4.f), 5.a), 5.c), 5.e), 6.c), and 6.d) on page 362

4. b) slope = 1; y-intercept = 12

c) slope = $-\frac{4}{9}$; y-intercept = 7

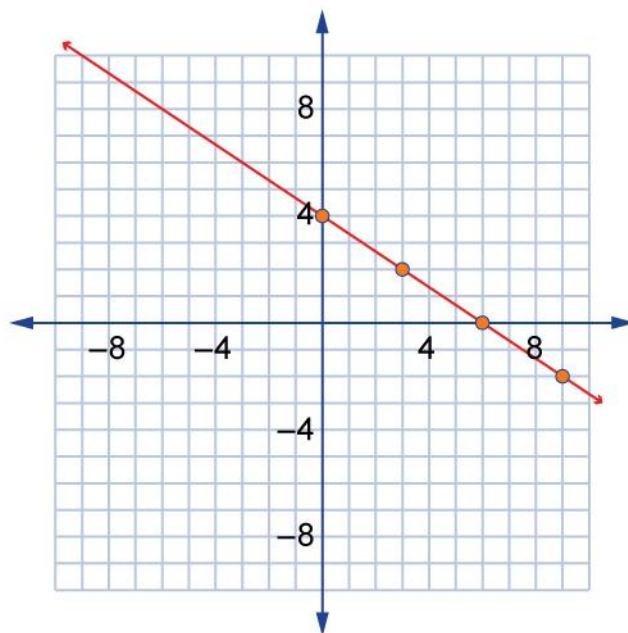
f) slope = 0; y-intercept = 3

5. a) $y = 7x + 16$

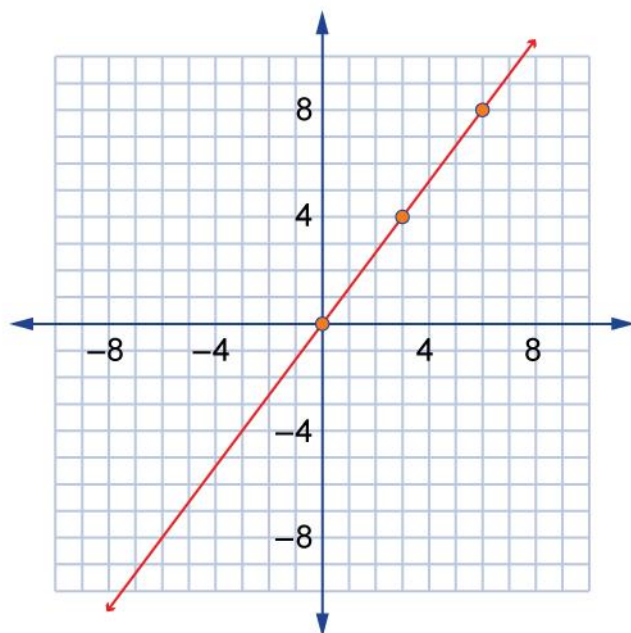
c) $y = \frac{7}{16}x - 3$

e) $y = -\frac{5}{12}x$

6. c) The graph should look like the following.



d) The graph should look like the following.



TT 3. b. *Foundations and Pre-calculus Mathematics 10* (Pearson), questions 12.a), 12.b), and 12.d) on pages 362 and 363

12. a) i) slope = $-\frac{1}{2}$; y-intercept = 2

ii) $y = -\frac{1}{2}x + 2$

To verify, substitute the point (2, 1) into the equation.

$$y = -\frac{1}{2}x + 2$$

$$1 = -\frac{1}{2}(2) + 2$$

$$1 = -1 + 2$$

$$1 = 1$$

Since the left side equals the right side, the equation is correct.

b) i) slope = 4; y-intercept = -6

ii) $y = 4x - 6$

To verify, substitute the point (1, -2) into the equation.

$$y = 4x - 6$$

$$-2 = 4(1) - 6$$

$$-2 = 4 - 6$$

$$-2 = -2$$

Since the left side equals the right side, the equation is correct.

d) i) slope = $-\frac{1}{3}$; y-intercept = -2

ii) $y = -\frac{1}{3}x - 2$

To verify, substitute the point $(3, -3)$ into the equation.

$$y = -\frac{1}{3}x - 2$$

$$-3 = -\frac{1}{3}(3) - 2$$

$$-3 = -1 - 2$$

$$-3 = -3$$

Since the left side equals the right side, the equation is correct.

TT 3. c. *Foundations and Pre-calculus Mathematics 10* (Pearson), questions 17 and 18 on pages 363 and 364

17. a) $y = 4x + 1$

From the graph, the slope is 4 and the y-intercept is 1.

b) $y = \frac{2}{3}x - 1$

From the graph, the slope is $\frac{2}{3}$ and the y-intercept is -1 .

c) $y = -\frac{5}{3}x - 7$

From the graph, the slope is $-\frac{5}{3}$ and the y-intercept is -7 .

- 18. a)** C
b) A
c) D
d) B