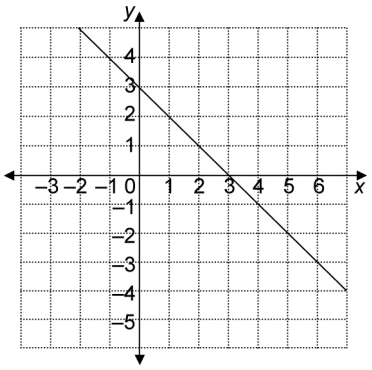
BLM Answers

BLM 6.GR.1 Practice: Get Ready

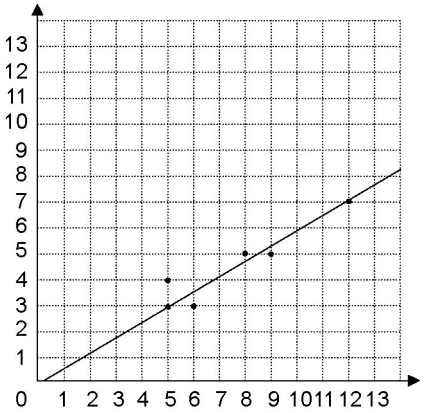
1. **a)** 4; the slope is the speed, in this case, 4 m/s
b) 0; the object was at "home" when it started moving

2. **a)**



b) –1
c) 3

3. **a)**



b) about 6

4. **a)** $\frac{1}{3}$ **b)** 1 **c)** $-\frac{2}{5}$

BLM 6.1.1 Practice: The Equation of a Line in Slope *y*-Intercept Form: $y = mx + b$

1.

	Equation	Slope	*y*-Intercept
a)	$y = 4x + 1$	4	1
b)	$y = \frac{x}{2} - 3$	$\frac{1}{2}$	–3
c)	$y = -2x$	–2	0
d)	$y = -x + 2$	–1	2

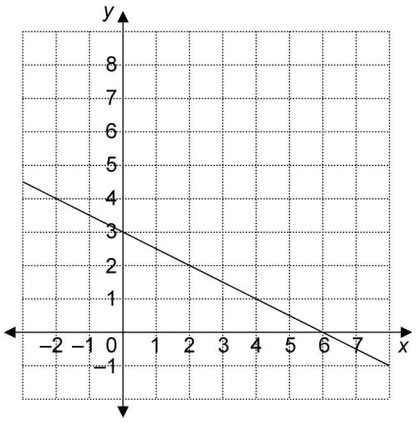
2. **a)** –3; 6
b) $\frac{1}{2}$; 2
c) $-\frac{2}{5}$; –2
d) $\frac{3}{5}$; 3

3. **a)** $y = -3x + 6$
b) $y = \frac{1}{2}x + 2$
c) $y = -\frac{2}{5}x - 2$
d) $y = \frac{3}{5}x + 3$

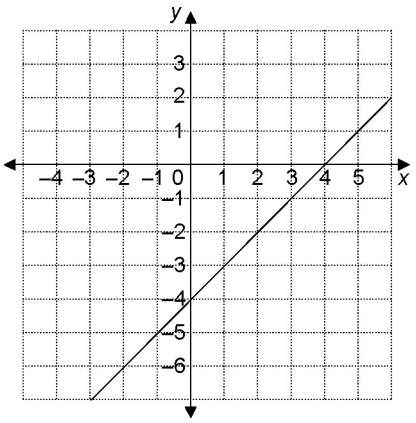
4. **a)** $y = x - 3$
b) $y = -6x + 6$

5. **a)** $y = -2x + 1$
b) $y = \frac{2}{3}x - 4$
c) $y = 5x$
d) $y = -\frac{3}{2}x + 3$

6. **a)** slope $-\frac{1}{2}$; *y*-intercept 3

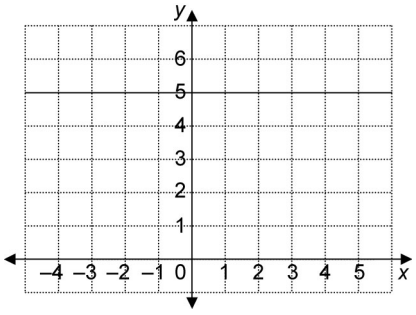


b) slope 1; *y*-intercept –4

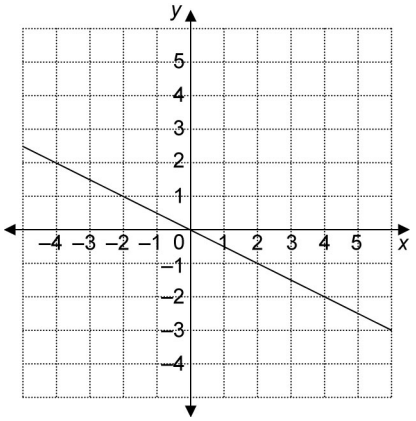


BLM Answers

c) slope 0; y-intercept 5



d) slope $-\frac{1}{2}$; y-intercept 0



BLM 6.2.1 Practice: The Equation of a Line in Standard Form: $Ax + By + C = 0$

1. a) $t = \frac{d}{s}$ **b)** $s = \frac{P}{6}$

c) $P = A - I$ **d)** $y = 4 - x$

2. a) $y = -x - 6$

b) $y = -2x$

c) $y = -5x + 3$

d) $y = -x + 1$

3. a) $3y = -x - 1$; $y = -\frac{1}{3}x - \frac{1}{3}$

b) $2y = -4x - 3$; $y = -2x + \frac{3}{2}$

c) $3y = -x$; $y = -\frac{1}{3}x$

d) $y = 5x - 1$

e) $5y = 6x + 1$; $y = \frac{6}{5}x + \frac{1}{5}$

f) $2y = -4x$; $y = -2x$

4. a) $y = -7x + 4$

b) $y = -\frac{3}{2}x + 4$

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

d) $y = \frac{4}{3}x$

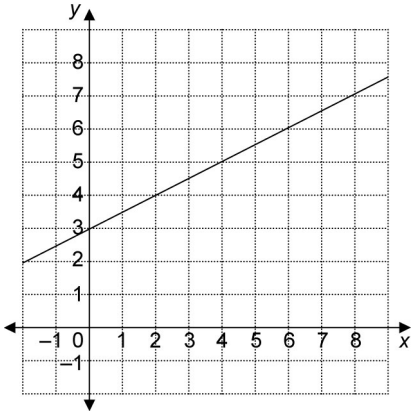
5. a) $\frac{1}{2}$; 3

b) $-\frac{3}{2}$; $\frac{1}{2}$

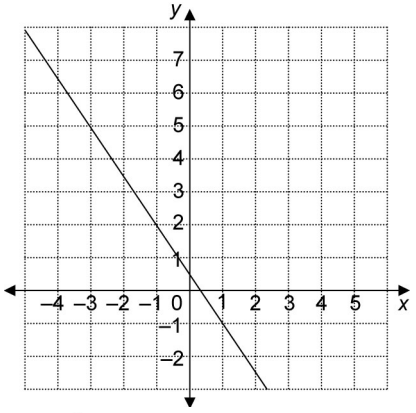
c) $-\frac{8}{3}$; –2

d) 1; 0

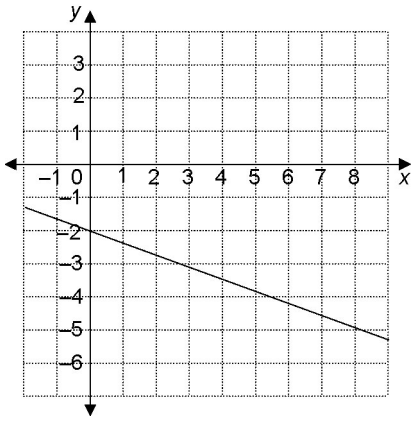
6. a)



b)

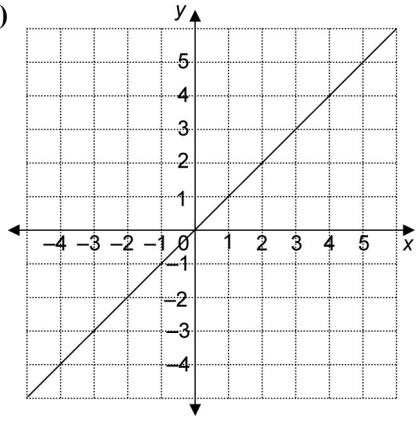


c)



BLM Answers

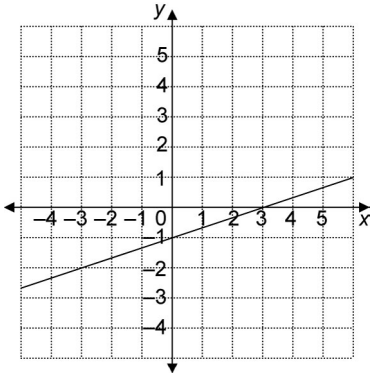
d)



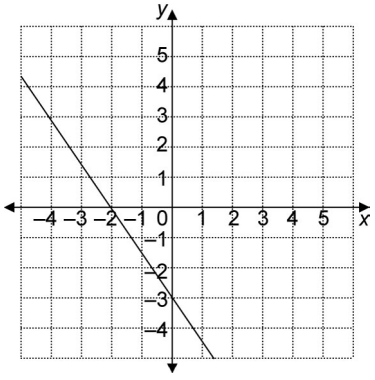
BLM 6.3.1 Practice: Graph a Line Using Intercepts

1. **a)** x-intercept: 3; y-intercept: –2
b) x-intercept: –3; y-intercept: –4
c) x-intercept: 2; y-intercept: 4
d) x-intercept: –6; y-intercept: –2

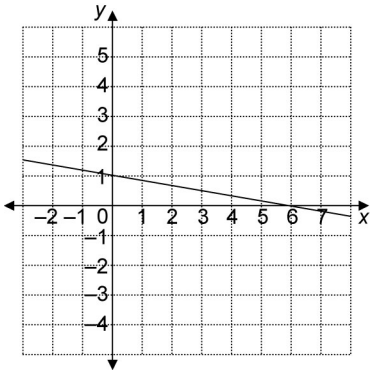
2. **a)**



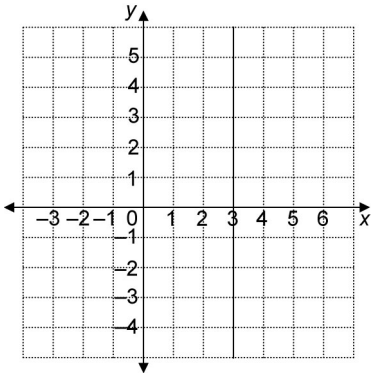
b)



c)



d)

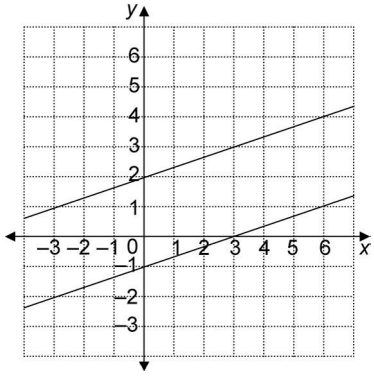


3. **a)** $\frac{1}{3}$ **b)** $-\frac{3}{2}$
c) $-\frac{1}{6}$ **d)** undefined

4. **a)** x-intercept: $\frac{4}{3}$; y-intercept: –4
b) x-intercept: $\frac{3}{5}$; y-intercept: $\frac{3}{2}$
c) x-intercept: 6; y-intercept: 2
d) x-intercept: 3; y-intercept: $-\frac{1}{2}$

BLM 6.4.1 Practice: Parallel and Perpendicular Lines

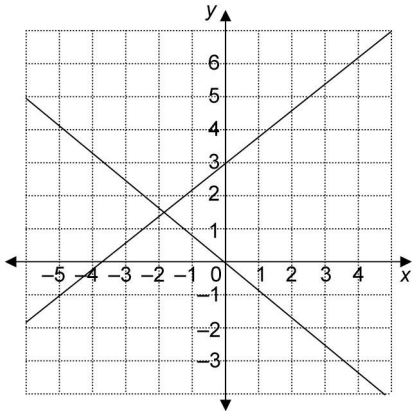
1. **a)**



parallel

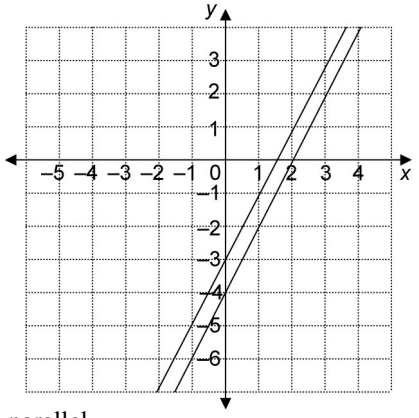
BLM Answers

b)



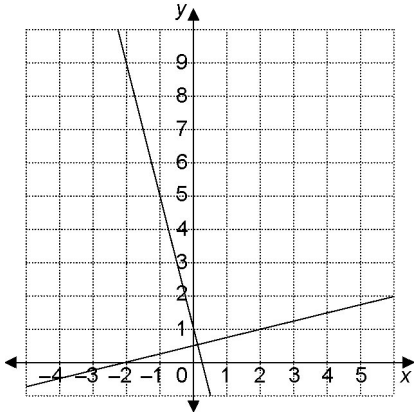
neither

c)



parallel

d)



perpendicular

2. **a)** neither **b)** perpendicular
c) parallel **d)** perpendicular
e) parallel **f)** neither
g) parallel **h)** perpendicular

3. **a)** $\frac{1}{4}, \frac{1}{4}$; parallel
b) $\frac{3}{5}, \frac{4}{5}$; neither
c) 3, −3; neither
d) $\frac{1}{6}, -6$; perpendicular
e) 3, 3; parallel
f) 1, −1; perpendicular

4. **a)** 2 **b)** −5
c) $\frac{1}{3}$ **d)** 4

5. **a)** $-\frac{7}{3}$ **b)** −2
c) $-\frac{1}{2}$ **d)** −2

6. Possible answer: $y = -\frac{4}{3}x + 5$

7. Possible answer: $y = -5x$

BLM 6.5.1 Practice: Find an Equation for a Line Given the Slope and a Point

1. **a)** $y = 5x + 2$
b) $y = 3x - 4$
c) $y = -2x$
d) $y = 4x + 8$
e) $y = -6x - 1$
f) $y = -\frac{3}{4}x + 12$
g) $y = \frac{2}{3}x - 5$
h) $y = \frac{1}{5}x - 2$

2. **a)** $y = x + 3$
b) $y = -x + 4$
c) $y = 2x - 1$
d) $y = -3x - 10$
e) $y = \frac{1}{5}x + 2$
f) $y = -\frac{1}{4}x - 2$
g) $y = \frac{2}{5}x + 7$
h) $y = \frac{1}{8}x - \frac{3}{4}$

BLM Answers

3. **a)** $y = 4x - 3$
b) $y = -x + 5$
c) $y = \frac{1}{2}x - 2$
d) $y = 5x + 11$
e) $y = -\frac{1}{2}x + 6$
f) $y = -5x$
g) $y = 2x + 7$
h) $y = -x + 6$

4. **a)** $-\frac{5}{2}$
b) 10
c) $y = -\frac{5}{2}x + 10$

BLM 6.6.1 Practice: Find an Equation for a Line Given Two Points

1. **a)** 1 **b)** –3
c) $\frac{7}{8}$ **d)** 1
e) –4 **f)** 1
g) $-\frac{5}{3}$ **h)** 1

2. **a)** $y = \frac{1}{2}x - 3$
b) $y = 3x + 1$
c) $y = -2x + 6$

3. **a)** $y = -4x + 21$ **b)** $y = x - 1$
c) $y = \frac{3}{7}x + 4$ **d)** $y = 6x + 19$
e) $y = x + 1$ **f)** $y = -\frac{4}{3}x - 1$
g) $y = -\frac{3}{5}x - 1$ **h)** $y = \frac{1}{6}x - \frac{5}{3}$

4. **a)** $-\frac{4}{3}$ **b)** $y = -\frac{4}{3}x + 4$

5. **a)** $\frac{3}{2}$ **b)** $y = \frac{3}{2}x$

BLM 6.7.2 Practice: Linear Systems

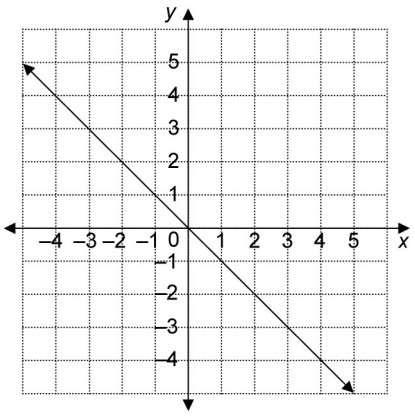
1. **a)** (3, 2) **b)** (–1, 4)
2. **a)** (1, 3) **b)** (4, –1)
3. **a)** (2, 2) **b)** (2, 4)
c) (–1, 4) **d)** (1, 2)
4. B
5. C

BLM 6.CR.1 Chapter 6 Review

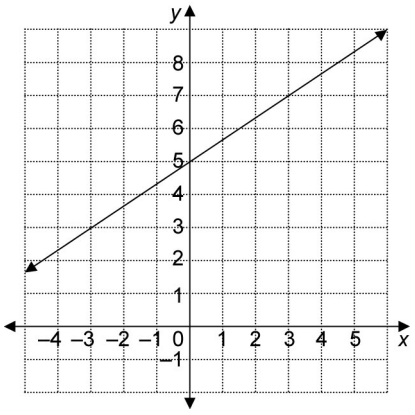
1. **a)** slope: –2; y-intercept: 6
b) slope: $-\frac{3}{2}$; y-intercept: –3

2. **a)** slope: 4; y-intercept: –5
b) slope: $-\frac{1}{6}$; y-intercept: 2

3. **a)** $y = -x$



b) $y = \frac{2}{3}x + 5$

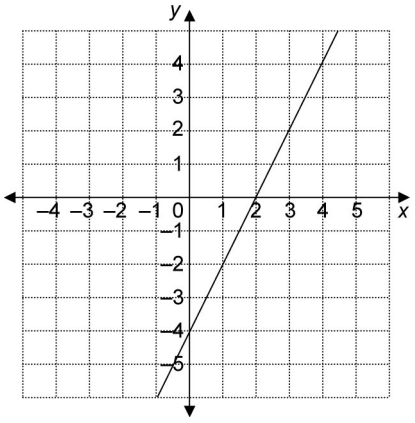


4. **a)** $y = 6x - 4$
b) $y = -\frac{x}{4} + 7$

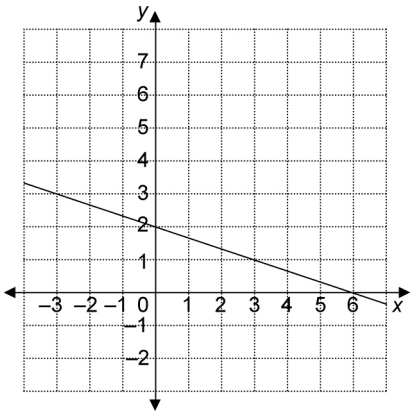
5. **a)** slope: –8; y-intercept: 4
b) slope: $\frac{3}{2}$; y-intercept: 4

BLM Answers

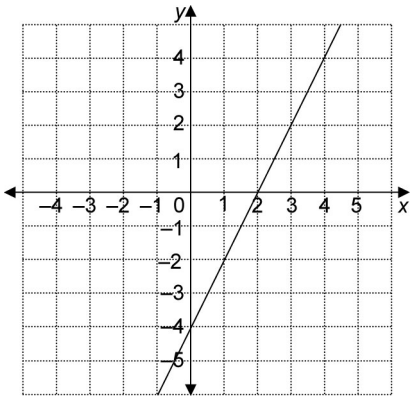
6. **a)** x-intercept: 2; y-intercept: -4



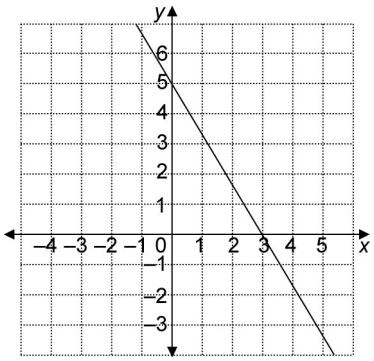
b) x-intercept: 6; y-intercept: 2



c) x-intercept: 2; y-intercept: -4



d) x-intercept: 3; y-intercept: 5



7. $2x - 3y + 12 = 0$ and $3y = 2x + 6$

8. $2x - 3y + 12 = 0$ and $3x + 2y = -4$; $3y = 2x + 6$ and $3x + 2y = -4$

9. -4

10. $y = -3x + 1$

11. $y = -\frac{2}{5}x - 2$

12. $y = -9x + 23$

13. **a)** -1.1

b) $d = -1.1t + 5$

c) About 4.5 s

14. (1, 1)

15. (2, 4)

BLM 6.PT.1 Chapter 6 Practice Test

1. D

2. A

3. D

4. A

5. B

6. $y = \frac{1}{2}x + 2$

7. **a)** slope: -1.2; d-intercept: 12

b) $d = -1.2t + 12$

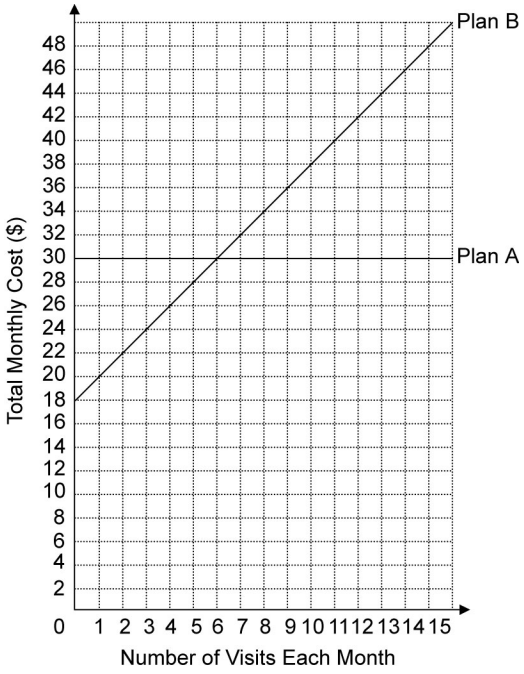
8. **a)** $y = -x + 4$

b) $y = -\frac{3}{5}x + 9$

9. $y = 3x + 4$

BLM Answers

10. a)

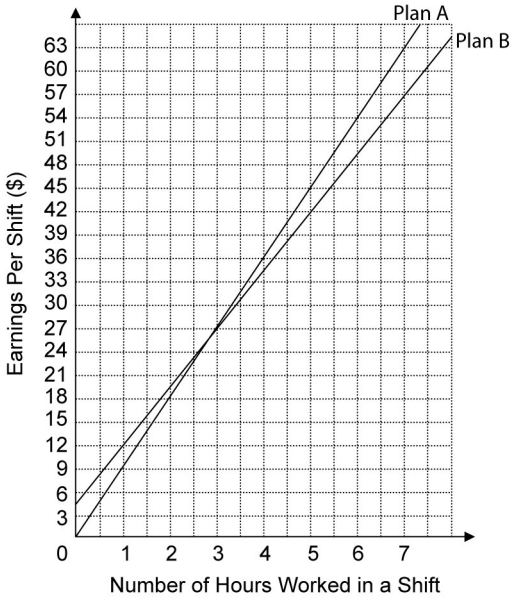


When you make 6 visits per month, the cost for both plans is $30.

b) I would choose Plan A if I go to the gym more than 6 times each month. If I thought I would go fewer than 6 times per month, I would choose Plan B (or not get a membership!).

BLM 6.CT.1 Chapter 6 Test

1. D
2. D
3. B
4. D
5. C
6. $y = -4x - \frac{11}{2}$
7. a) 3 m
b) Away; approximately 2.1 m/s
c) $d = 2.1t + 3$
8. a) $y = 6x + 10$
b) $y = \frac{3}{5}x + 3$
9. $y = -\frac{5}{2}x + 3$
10. a)



The earnings per shift under both plans are $27 when you work 3 h.

b) I would choose Plan A if I usually work more than 3 h each shift. If I work fewer than 3 h per shift, I would choose Plan B.