

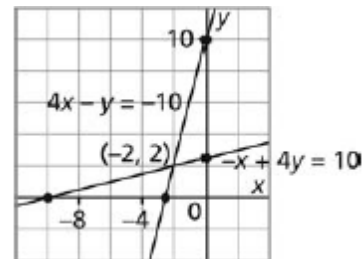
Math 10

Lesson 5-5 Answers

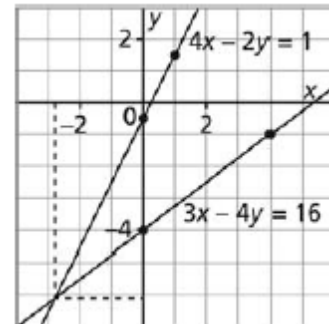
Assignment

1. a) $3x + y = 11$ and $3x - 5y = -1$
b) $x = 3, y = 2$; exact

2. a) George: draw a line through each pair of points, then determine the coordinates of the point of intersection.
Sunita: plot each y-intercept, then use the slope to mark another point on each line.
b) $x = -2, y = 2$



3. a) The graphs appear to intersect at $(-2.8, -6.1)$.
b) Exact; when $(-2.8, -6.1)$ is substituted into each equation, the left side equals the right side.



4. Where necessary, the answers have been written to 3 decimal places.
a) $x \equiv 1.526, y \equiv 3.316$
b) $x = 12, y = 0$
c) $x = 3.25, y = -1.4$
5. a) Variables may differ.
 $2c + 4b = 940$ and $c + 3b = 620$
b) Each line represents one of the equations in the linear system.
c) One bowl of cereal has 170 mg of sodium and 1 slice of bacon has 150 mg of sodium; exact solution.

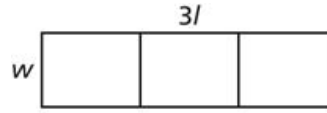
6. a) $x = 0, y = -5$ b) $x = 1, y = 3$ c) $x = \frac{19}{7}, y = -\frac{11}{63}$ d) $x = -1, y = -2$

7. c) $x = -1, y = 8$

8. a) Variables may differ.
 $\frac{1}{4}x + \frac{2}{3}y = 5\frac{3}{4}$ and $x - y = 1$

- b) 7 one-quarter cup measures; 6 two-third cup measures

9. a)
 b) Variables may differ.
 $60l + 2w = 306$ and $2l + 60w = 190$
 c) Width: 3 ft.; length: 5 ft.



10. 35 triangles; 115 squares

11. a) $x = 0, y = -5$ b) $x = -\frac{11}{2}, y = -6$ c) $x = 2.5, y = -0.25$

12. a) $2l + \left(1 + \frac{1}{2}\pi\right)w = 68\frac{5}{6}$ and $l - w = 7$
 b) Length: 19 ft.; width: 12 ft.

13. a) Infinite solutions, for example:
 $x + y = -1$ and $2x + 2y = -2$
 No solution, for example: $2x + 2y = 5$ and $4x + 4y = -5$

14. a) Clue 1 and Clue 2
 b) 45 and 12

15. a) No solution
 b) Infinite solutions
 c) One solution
 d) No solution