

**Practice 7-1**

1. (1, 2) 2. (4, 3) 3. no solution 4. (-1, 3) 5. (7, 4)  
6. infinitely many solutions 7. (-5, 2) 8. no solution  
9. (-1, -1) 10. (0, -3) 11. (6, 6) 12. (-2, -4)  
13. no solution 14. (-3, 5) 15. (7, 11) 16. infinitely many  
solutions 17. (8, 7) 18. (-2, -2) 19. (5, 6) 20. (1, -2)  
21. (5, 4) 22. (-3, 3) 23. no solution 24. (0, 0)  
25.  $\left(\frac{1}{2}, \frac{1}{2}\right)$  26.  $\left(\frac{3}{2}, \frac{3}{2}\right)$  27.  $\left(-\frac{1}{2}, 0\right)$  28.  $\left(-4, -2\frac{1}{2}\right)$   
29. (13, 19) 30. (8, 22) 31. (18, 16) 32. no solution  
33. (25, -30) 34. (0, -10) 35. (40, 30) 36. (28, 14)  
37. no solution 38. (36, 42) 39. (16, 24) 40. (18, -8)  
41. (-1.5, -2.25) 42. (-2, -1) 43. (1.5, -2.5)

**Practice 7-2**

1. (1, 1) 2. (2, 6) 3. (5, 5) 4. (-3, 2) 5. (0.6, 8) 6. (7, 4)  
7. (5, -2) 8. infinitely many solutions 9. (100, 50)  
10. no solution 11. (1, 9) 12. (-2, -3) 13. infinitely many solutions  
14. no solution 15. (1, -2) 16. (-2, -2)  
17. no solution 18. infinitely many solutions 19. (4, 8)  
20. (2, -2) 21. no solution 22. (-3, 0) 23. (0, -1)  
24. infinitely many solutions 25.  $\left(3, -\frac{2}{3}\right)$  26. (1.5, 3.6)  
27. (6.7, 2.4) 28. infinitely many solutions 29. (13, 11)  
30. no solution 31. (10.5, 8.2) 32. (-6, -24) 33. infinitely many solutions  
34. (28, -36) 35. no solution  
36. (-18, -30) 37. 88 cones 38. paint: \$17/gal, brush: \$5.50

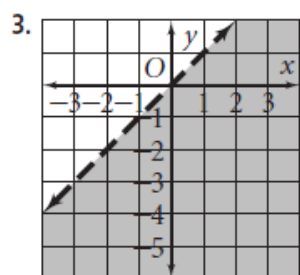
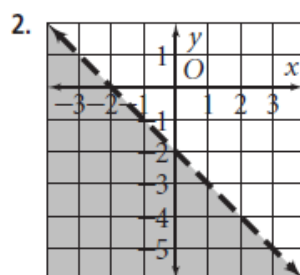
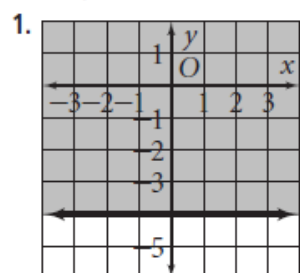
**Practice 7-3**

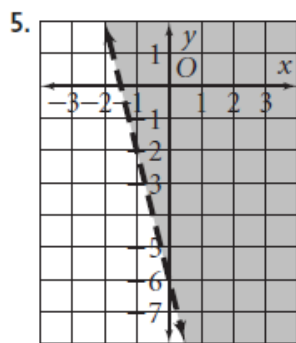
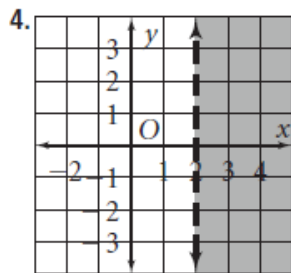
1. (1, 3) 2. (4, 8) 3. (7, 6) 4. (2, -1) 5. (2, 0) 6.  $\left(\frac{1}{2}, 2\right)$   
7. (2, -2) 8. (6, -1) 9. (18, 12) 10. (3, 6) 11. (-1, 5)  
12. (0, 2) 13. (5, 7) 14. (-1, -3) 15. (0, 0) 16.  $\left(4, -\frac{1}{3}\right)$   
17. (8, 7) 18. (2, 6) 19. (4, 11) 20. (3, 9) 21. (11, 7)  
22. (8, -3) 23. (7, -3) 24. (0, 8) 25. (-1, 2) 26. (1, 6)  
27. (8, -1) 28.  $\left(\frac{3}{2}, 3\right)$  29. (4, -3) 30. (7, -9) 31. (4, 3)  
32. (-7, 11) 33. (9, 2) 34. (6, 13) 35.  $\left(-3, \frac{2}{3}\right)$   
36. (1, 1) 37. (2, 5) 38. (8, 1) 39. (10, -3) 40. (7, -7)  
41. (8, 8) 42. (2, 3) 43. (9, 7) 44. (6, 11) 45.  $\left(-\frac{1}{9}, 1\right)$   
46. shirts: \$7.50; pants: \$18.50 47. 20 cherry pies;  
16 apple pies

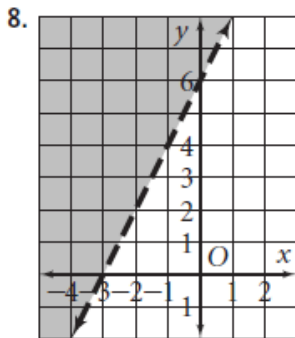
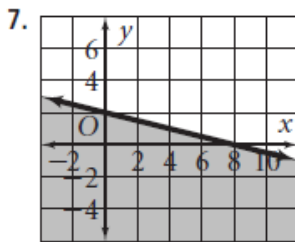
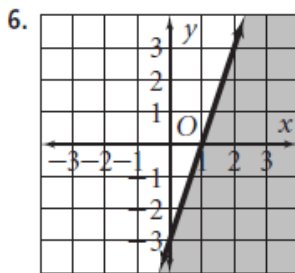
### Practice 7-4

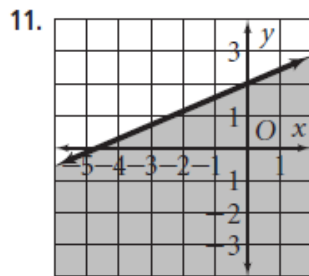
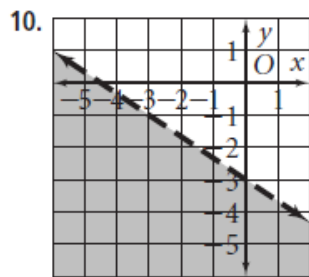
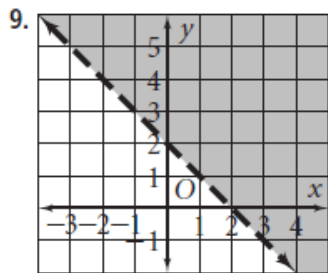
1. 30 2-pt; 10 4-pt
2. 15 offices
3. \$20; \$15
4. 2.5 mi/h; 0.5 mi/h
5. 150 min/wk; 100 min/wk
6. 89 T-shirts
7. 160 mi/h, 10 mi/h
8. \$2.50; \$1.50
9. 330 spaces; 120 spaces
10. 37.5 m/min; 12.5 m/min

Practice 7-5

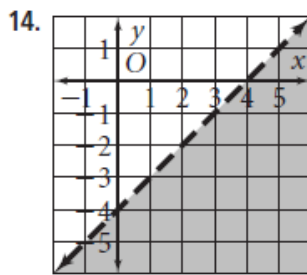
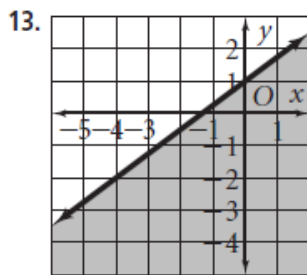
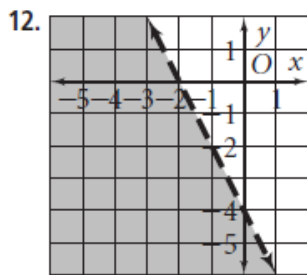


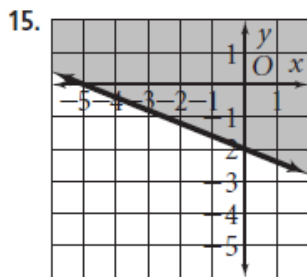






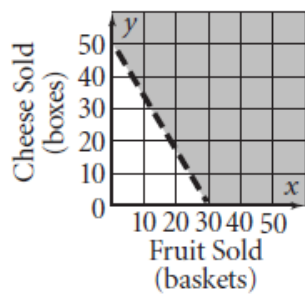






16a.  $5x + 3y > 150$

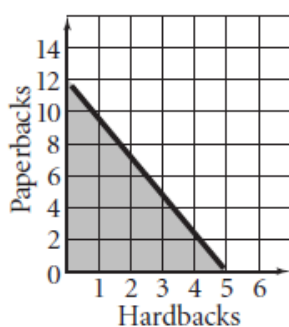
16b. Red Cross Fundraiser



16c. Answers may vary. The solutions are all of the coordinates of the points that are both positive integers within the shaded region. Samples: 20 fruit baskets and 20 cheese boxes; 25 fruit baskets and 10 cheese boxes

17a.  $12x + 5y \leq 60$

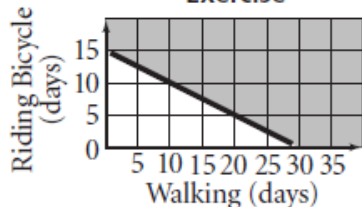
17b. **Books Purchased**



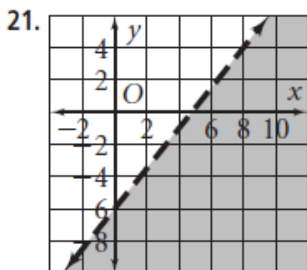
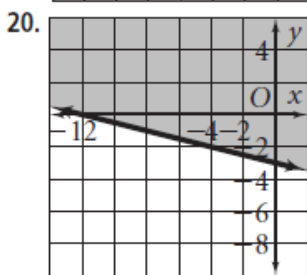
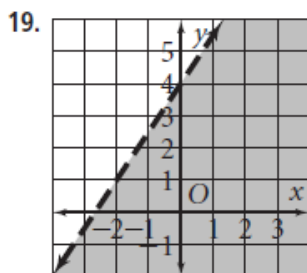
17c. Answers may vary. The solutions are all of the coordinates of the points that are both positive integers within the shaded region or on the boundary line. Samples: 5 hardbacks and no paperbacks; 3 hardbacks and 2 paperbacks

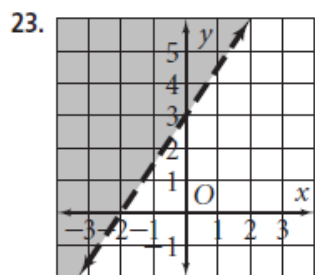
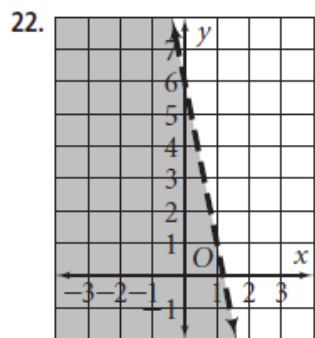
18a.  $5x + 10y \geq 150$

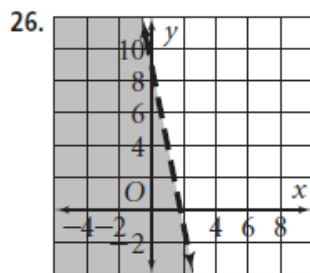
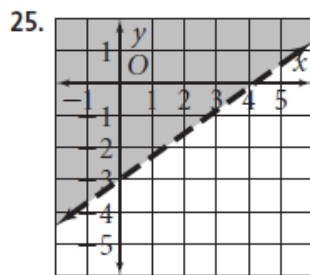
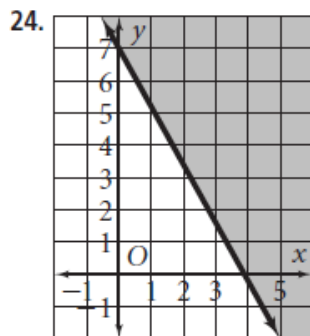
18b. **Exercise**

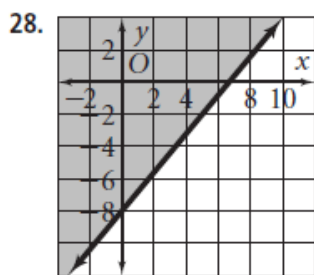
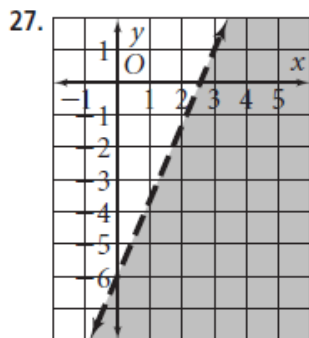


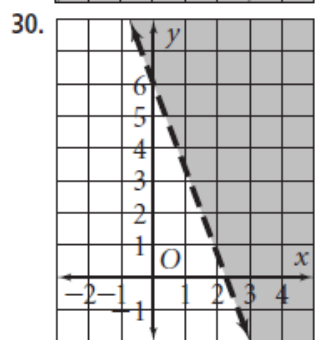
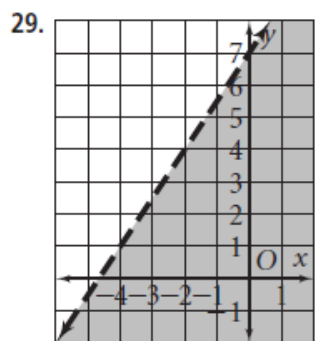
18c. Answers may vary. Samples: 10 days walking and 11 days riding bicycle, 12 days walking and 10 days riding bicycle





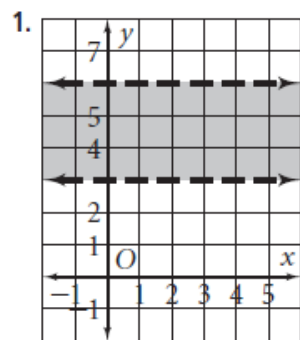


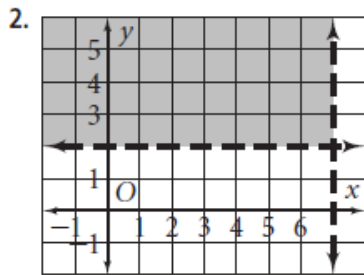




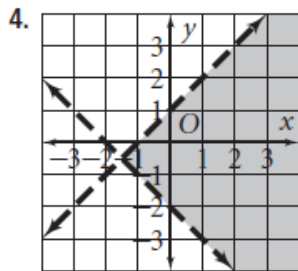


Practice 7-6

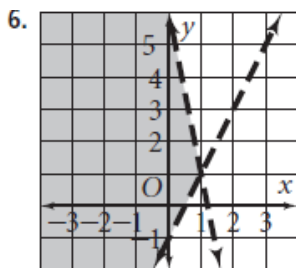




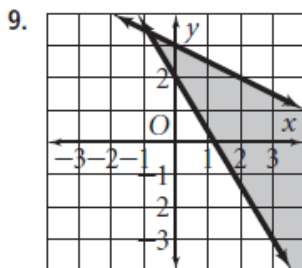
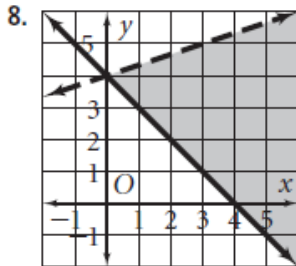
3. no solution

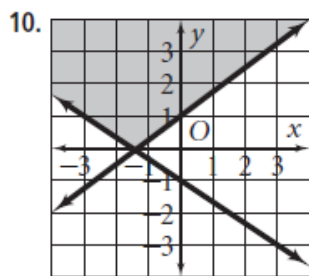
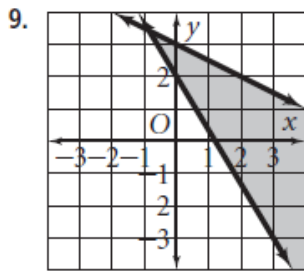


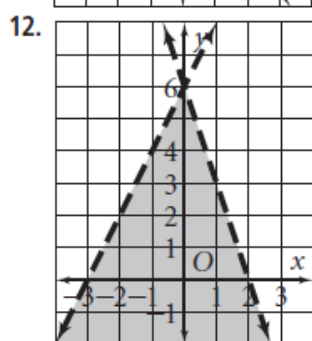
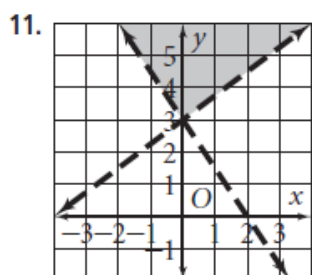
5. no solution



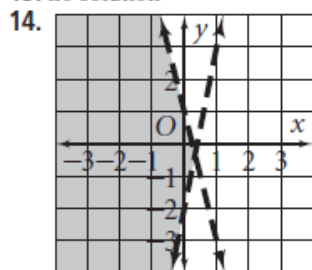
7. no solution







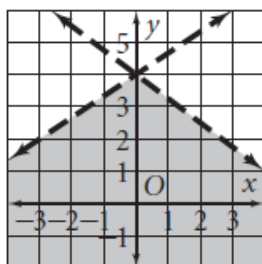
13. no solution



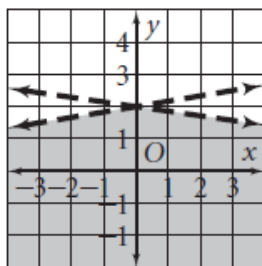
15. no solution

16. no solution

17.

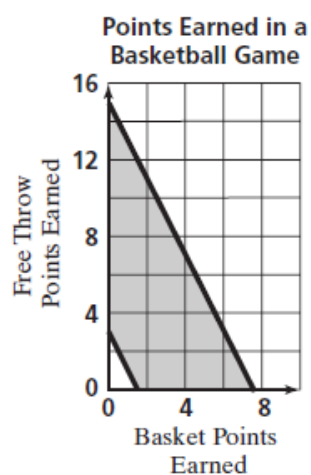


18.



19a.  $2x + y \geq 3; 2x + y \leq 15$

19b.

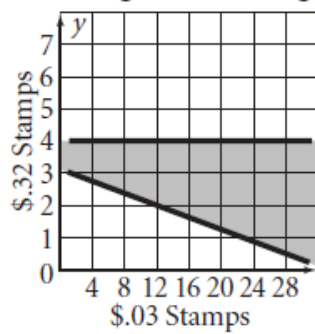


19c. Answers may vary. The solutions are all of the coordinates of the points that are both positive integers within the shaded region or on the boundary lines. Sample: 4 baskets and 5 free throws

20a.  $3x + 32y \geq 100; y \leq 4$

20a.  $3x + 32y \geq 100; y \leq 4$

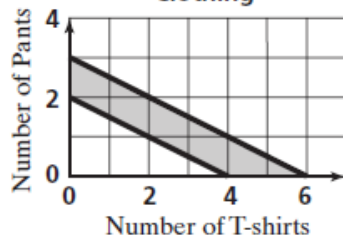
20b. Postage for a Package



20c. Answers may vary. The solutions are all of the coordinates of the points that are both positive integers within the shaded region or on the boundary lines. Sample: 4 3-cent stamps and 3 32-cent stamps

21a.  $10x + 20y \geq 40; 10x + 20y \leq 60$

21b. Clothing





**21c.** Answers may vary. The solutions are all of the coordinates of the points that are both positive integers within the shaded region or on the boundary lines. Samples; 3 T-shirts and 1 pair of pants, 1 T-shirt and 2 pairs of pants.