

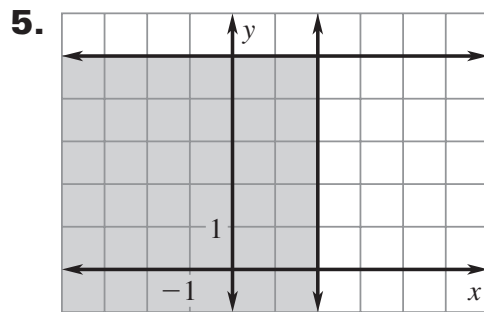
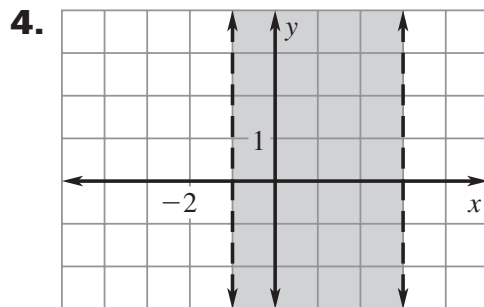
# Answers for 3.3

For use with pages 171–173

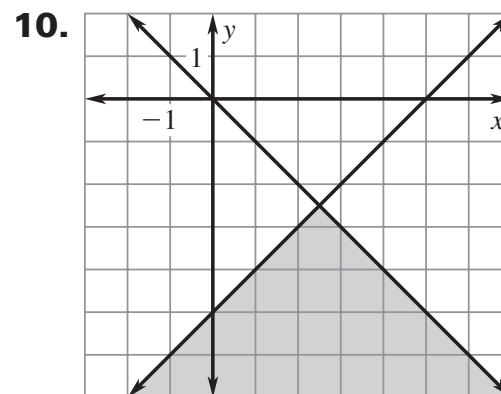
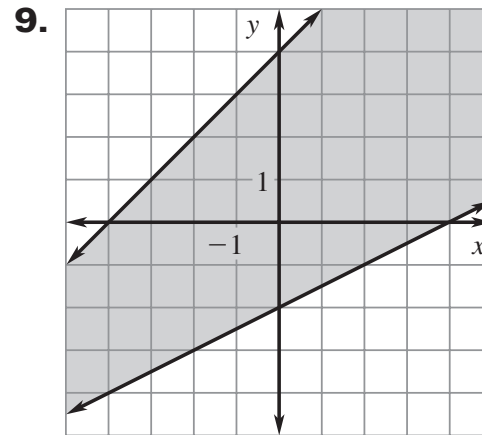
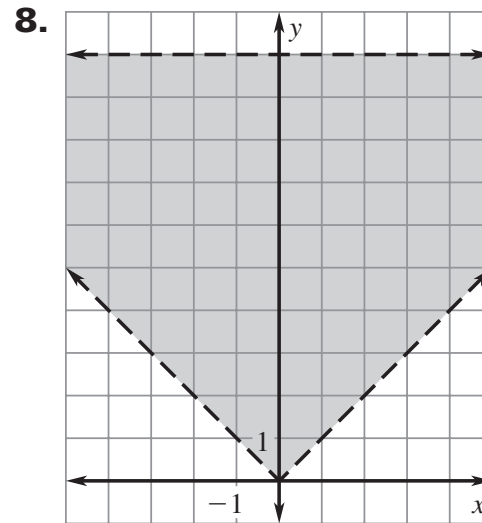
## 3.3 Skill Practice

- The ordered pair must satisfy each inequality of the system.
- Sample answer:* Graph each inequality on the same coordinate plane. The solution to the system is the region of the plane where all the shadings overlap.

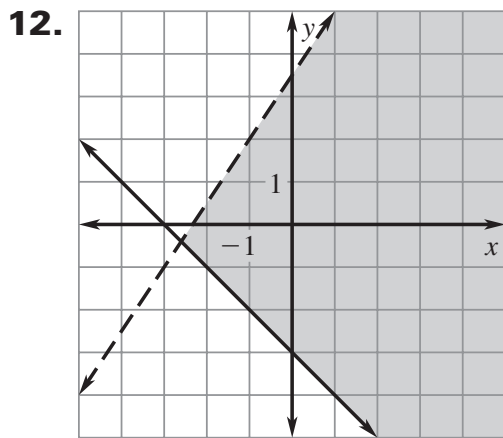
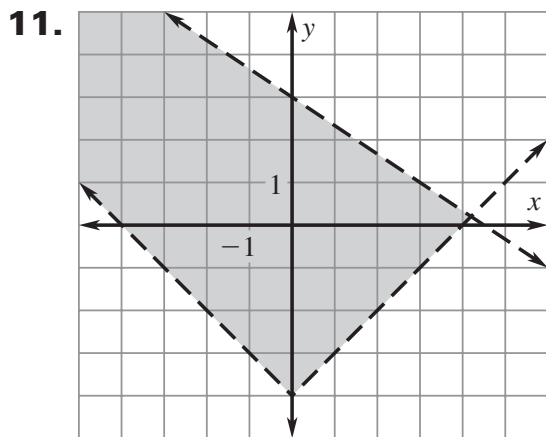
3. D



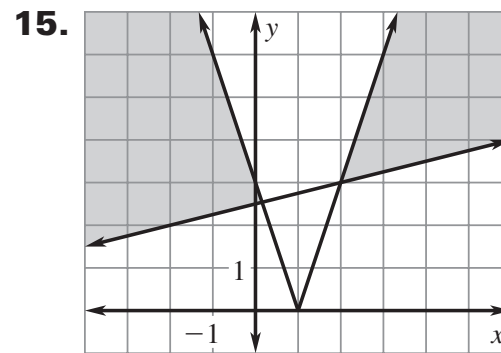
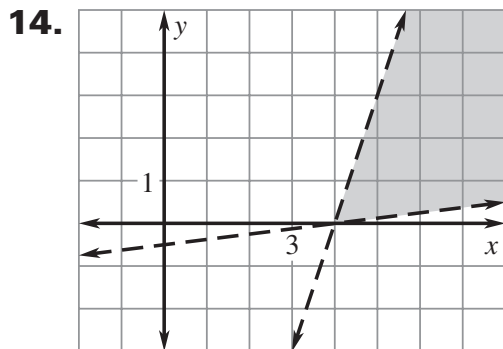
6. no solution      7. no solution



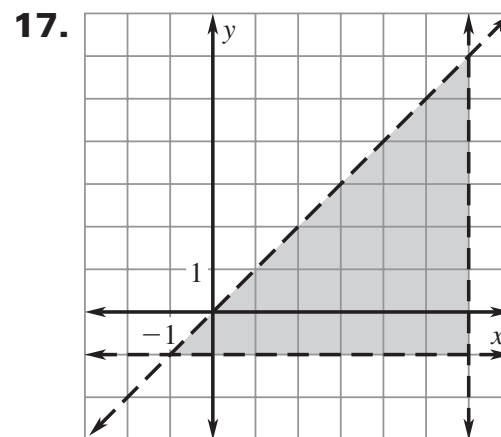
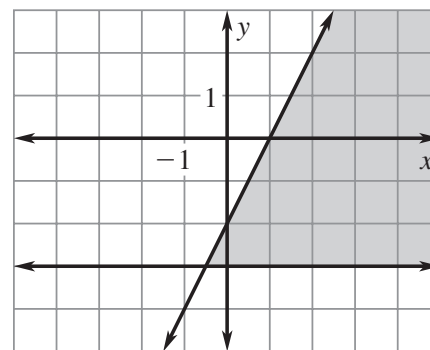
**Answers for 3.3** *continued*  
For use with pages 171–173



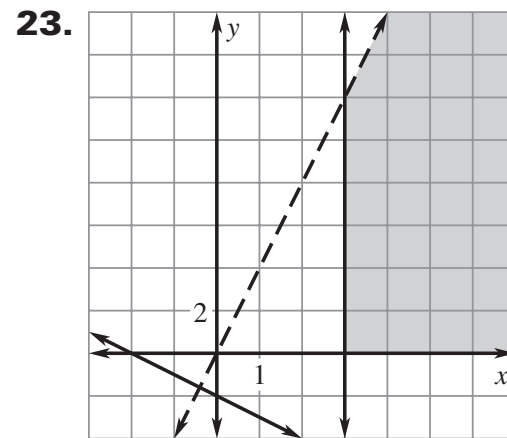
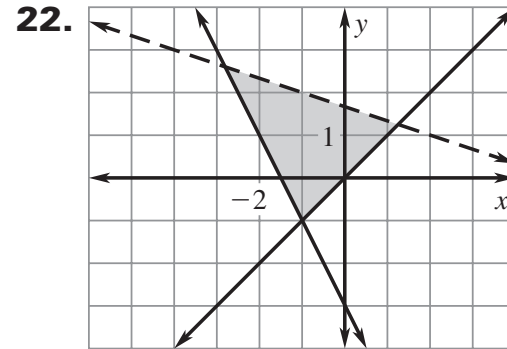
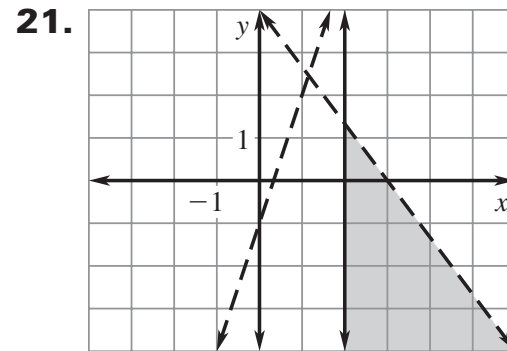
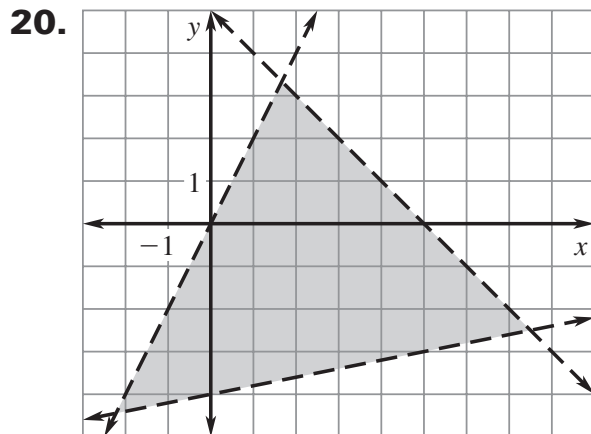
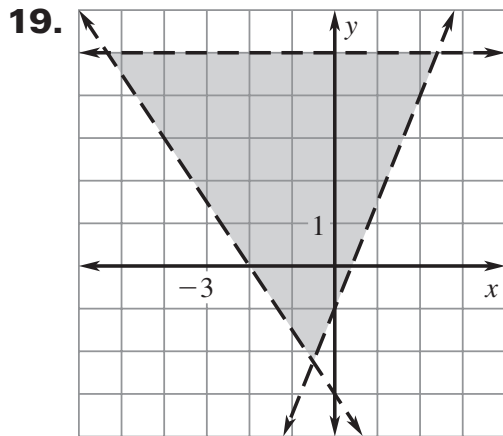
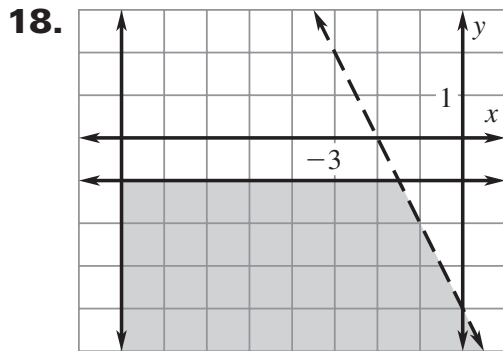
**13.** no solution



**16.** The shading of the second inequality is incorrect.

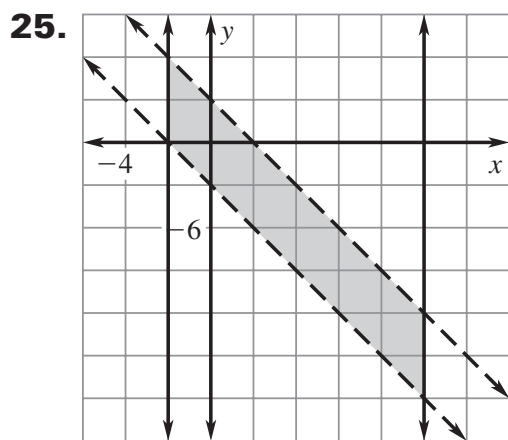
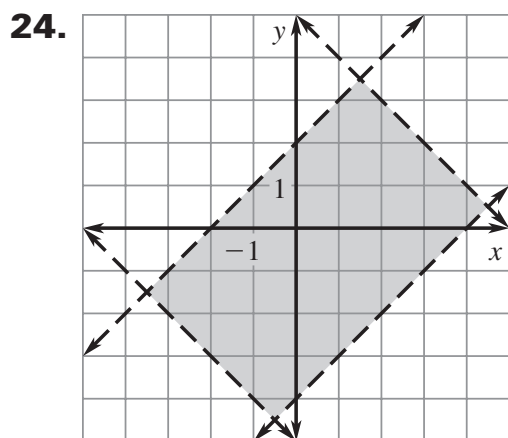


**Answers for 3.3** *continued*  
 For use with pages 171–173



# Answers for 3.3 *continued*

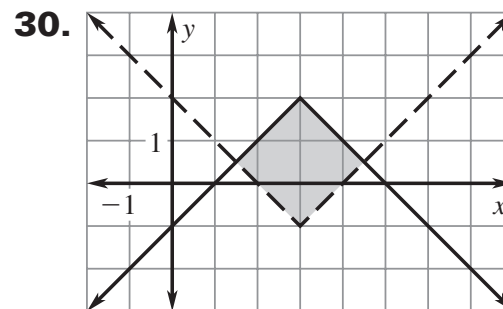
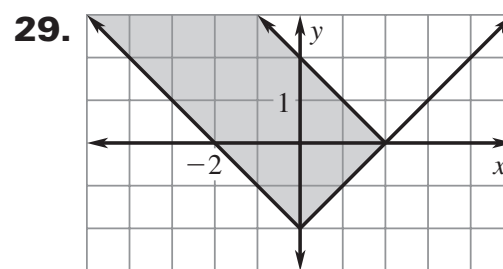
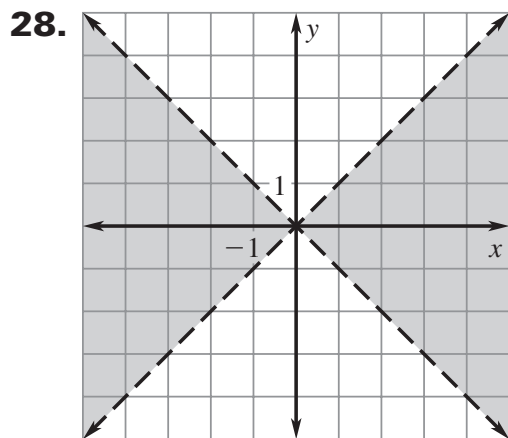
For use with pages 171–173



**26.** B

**27.** *Sample answer:*

$$y < x - 1, y < -\frac{3}{4}x + 4$$



**31.**  $y \leq 3, y \geq -2, x \leq 4, x \geq -3$

**32.**  $x \geq -2, x \leq 2, y \geq -\frac{1}{2}x - 3,$   
 $y \leq \frac{1}{2}x + 3$

**33.**  $y \leq 2x + 1, y \leq -5x + 8,$   
 $y \geq \frac{1}{4}x - \frac{5}{2}$

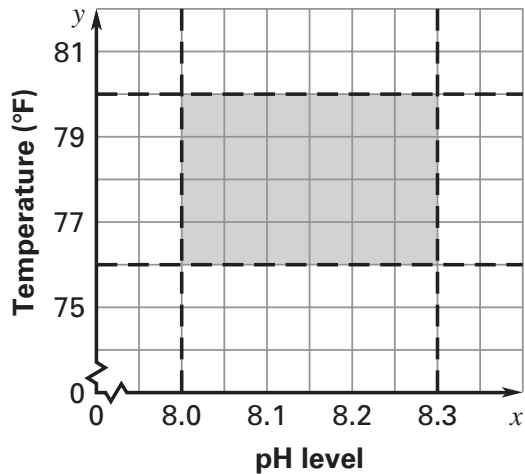
## 3.3 Problem Solving

**34.**  $7.5x + 6y \geq 92, x + y \leq 20,$   
 where  $x$  represents the dog walking job and  $y$  represents the car wash attendant job

**35.**  $x \geq 20, x \leq 50, y \geq 0.3x, y \leq 0.7x,$   
 where  $x$  represents the regular price and  $y$  represents the sale price;  $6 \leq y \leq 14$

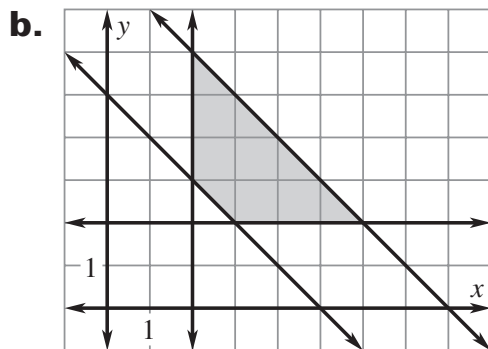
**Answers for 3.3** *continued*  
For use with pages 171–173

**36.**  $x > 8.0, x < 8.3, y > 76^\circ, y < 80^\circ$



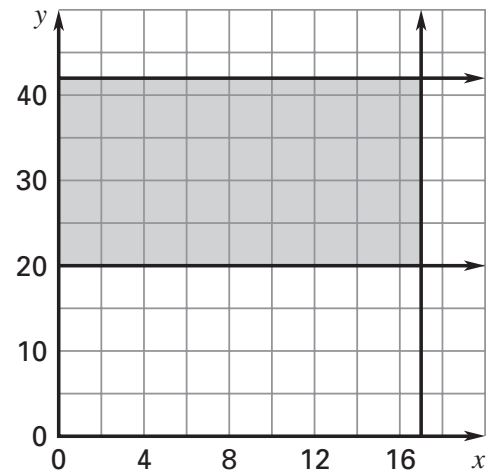
The graphs look the same, the axes are just incremented differently.

**37. a.**  $x \geq 2, y \geq 2, x + y \leq 8,$   
 $x + y \geq 5$

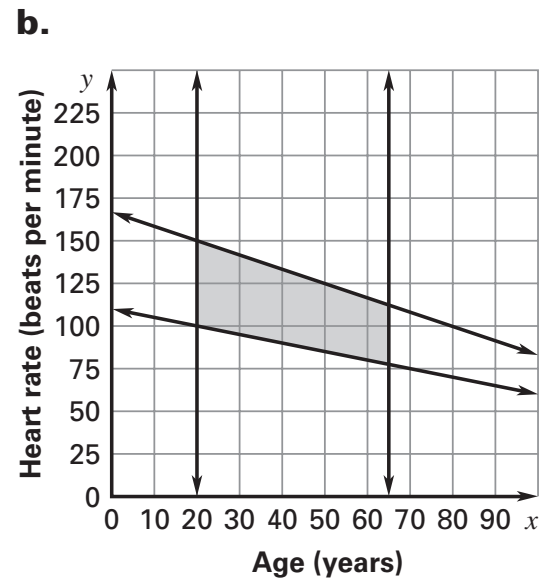


**c.** *Sample answer:* 3 juniors,  
4 seniors; 4 juniors, 4 seniors

**38.**  $y \geq 20, y \leq 42, x \geq 0, x \leq 17$



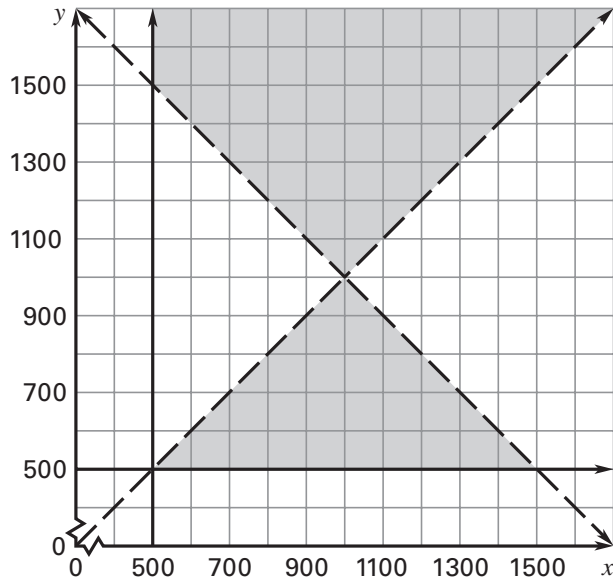
**39. a.**  $x \geq 20, x \leq 65,$   
 $y \geq 0.5(220 - x),$   
 $y \leq 0.75(220 - x)$



**c.** No; the person's heart rate is above the target zone. A 40-year old person's heart rate should be between 90 and 135 heartbeats per minute.

**Answers for 3.3** *continued*  
For use with pages 171–173

**40.**  $x \geq 500, y \geq 500,$   
 $|y - 1000| > |x - 1000|$

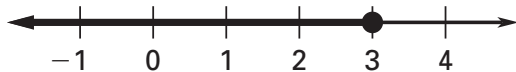


**3.3 Mixed Review**

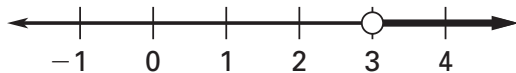
**41.** 32                      **42.** 33

**43.** 25                      **44.** 3630

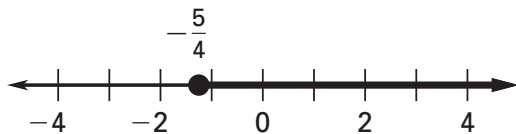
**45.**  $x \leq 3$



**46.**  $x > 3$



**47.**  $x \geq -\frac{5}{4}$



**48.** (4, 9)                      **49.** (-3, 5)

**50.** no solution                      **51.** (8, -2)

**52.** infinitely many solutions

**53.**  $(\frac{3}{8}, -2)$

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