

## Chapter 2 answers

### 2.1

- |                       |                         |                        |                    |                        |            |
|-----------------------|-------------------------|------------------------|--------------------|------------------------|------------|
| 1. No                 | 3. Yes                  | 5. Yes                 | 7. No              | 9. Yes                 | 11. {18}   |
| 13. {26}              | 15. {21}                | 17. {45}               | 19. {6}            | 21. {4}                | 23. {3}    |
| 25. {-2}              | 27. {69}                | 29. {-5}               | 31. {18}           | 33. {7}                | 35. {0}    |
| 37. {3}               | 39. {-3}                | 41. $\{-\frac{5}{2}\}$ | 43. {0}            | 45. {-8}               | 47. {-40}  |
| 49. $\{\frac{5}{3}\}$ | 51. $\{-\frac{28}{9}\}$ | 53. {2}                | 55. {-3}           | 57. $\{\frac{1}{2}\}$  | 59. {5}    |
| 61. {2}               | 63. $\{-\frac{11}{3}\}$ | 65. {6}                | 67. {-4}           | 69. $\{\frac{23}{6}\}$ | 71. 27     |
| 73. 150               | 75. 46.2%               | 77. 14.3               | 79. 25             | 81. 1500%              | 83. 222.87 |
| 85. 8                 | 87. \$11.88             | 89. 215 iphones        | 91. 24,000 runners |                        |            |
| 93. 3400 people       | 95. 4% increase         | 97. 65% markup         | 99. 660 people     |                        |            |

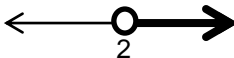
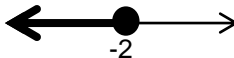
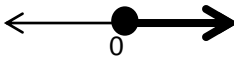
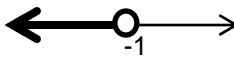
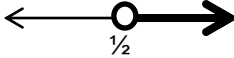
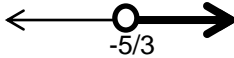
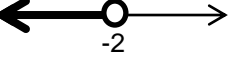
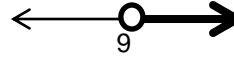
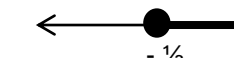
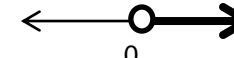
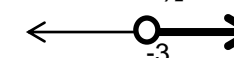
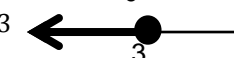
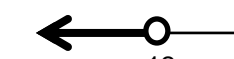
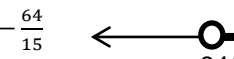
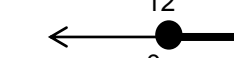
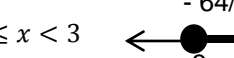
### 2.2

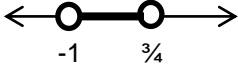
- |                         |                        |                       |                          |                         |                         |
|-------------------------|------------------------|-----------------------|--------------------------|-------------------------|-------------------------|
| 1. {7}                  | 3. {2}                 | 5. $\{\frac{40}{7}\}$ | 7. $\{\frac{6}{5}\}$     | 9. {-2}                 | 11. {-3}                |
| 13. {-3}                | 15. {4}                | 17. {3}               | 19. {-4}                 | 21. $\{\frac{27}{17}\}$ | 23. $\{\frac{25}{3}\}$  |
| 25. {3}                 | 27. $\{\frac{11}{7}\}$ | 29. {3}               | 31. {1}                  | 33. {1}                 | 35. {1}                 |
| 37. $\{-\frac{5}{7}\}$  | 39. {2}                | 41. {2}               | 43. $\{-\frac{18}{17}\}$ | 45. $\{\frac{1}{2}\}$   | 47. {0}                 |
| 49. {0}                 | 51. $\{\frac{44}{9}\}$ | 53. {-20}             | 55. {-3}                 | 57. {0}                 | 59. $\{-\frac{5}{32}\}$ |
| 61. $\{-\frac{8}{31}\}$ | 63. {40}               | 65. {1300}            | 67. {7000}               |                         |                         |

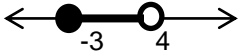
### 2.3

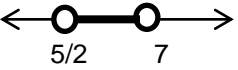
- |                        |                        |                  |                           |
|------------------------|------------------------|------------------|---------------------------|
| 1. 8 ft by 10 ft       | 3. 12 cm by 19 cm      | 5. 9 cm by 16 cm | 7. 18 m by 36 m           |
| 9. 52 inches           | 11. 14 inches          | 13. 31 feet      | 15. 8 in., 13 in., 15 in. |
| 17. $30^0, 60^0, 90^0$ | 19. $45^0, 60^0, 75^0$ | 21. 13, 14, 15   | 23. 15, 17, 19            |
| 25. 21, 22, 23         | 27. 3 hours            | 29. 3 hours      | 31. 5 L/min               |
| 33. 16 hours           | 35. 160 hours          | 37. 49 women     | 39. \$42,540              |
| 41. \$100,000          | 43. 22.2 gallons       | 45. 11.5 seconds | 47. $-40^0$               |
| 49. 2500 units         | 51. \$1,800            | 53. 24%          |                           |

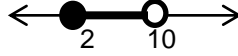
### 2.4

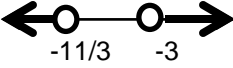
- |   |   |
|---|---|
| 1.                         | 3.                        |
| 5.                         | 7.                        |
| 9.                         | 11.                       |
| 13. $x < -2$               | 15. $x > -9$              |
| 17. $x \geq -\frac{1}{2}$  | 19. $x > 0$               |
| 21. $x > -3$               | 23. $x \leq 3$            |
| 25. $x < 12$               | 27. $x > -\frac{64}{15}$  |
| 29. $x \geq 0$             | 31. $-3 \leq x < 3$       |

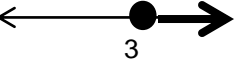
33.  $-1 < x < \frac{3}{4}$  


37.  $-3 \leq x < 4$  

41.  $\frac{5}{2} < x < 7$  


45.  $10 > x \geq 2$  

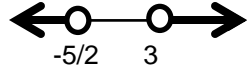
49.  $x < -\frac{11}{3}$  or  $x > -3$  

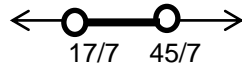
53.  $x \geq 3$  


57. all real numbers 

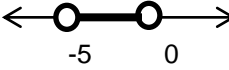
61.  $x < 1$  

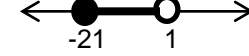
65.  $-4 \leq x < 1$  

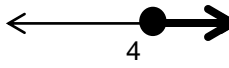
69.  $x < -\frac{5}{2}$  or  $x > 3$  

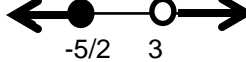
35.  $\frac{17}{7} < x < \frac{45}{7}$  


39.  $3 \leq x \leq 5$  

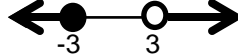
43.  $0 > x > -5$  

47.  $1 > x \geq -21$  

51.  $x \geq 4$  

55.  $x \leq -\frac{5}{2}$  or  $x > 3$  

59. all real numbers 

63.  $x \leq -3$  or  $x > 3$  

67.  $x > 4$  