2.1–2.4 Quiz

Write the sentence as an inequality. *(Section 2.1)*

1. A number z minus 6 is greater than or equal to 11.

2. Twelve is no more than the sum of -1.5 times a number w and 4.

Write an inequality that represents the graph. *(Section 2.1)*

3.

4.

Solve the inequality. Graph the solution. *(Section 2.2 and Section 2.3)*

5. $9 + q \leq 15$

6. $z - (-7) < 5$

7. $-3 < y - 4$

8. $3p \geq 18$

9. $6 > \frac{w}{-2}$

10. $-20x > 5$

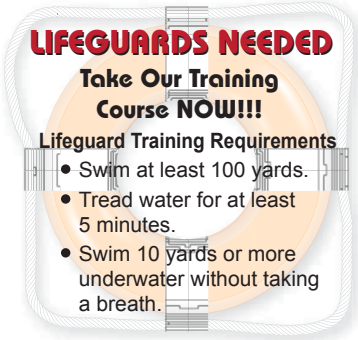
Solve the inequality. *(Section 2.4)*

11. $3y - 7 \geq 17$

12. $8(3g - 2) \leq 12(2g + 1)$

13. $6(2x - 1) \geq 3(4x + 1)$

14. Three requirements for a lifeguard training course are shown. *(Section 2.1)*

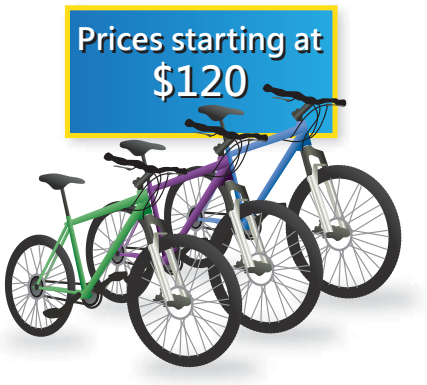


a. Write and graph three inequalities that represent the requirements.

b. You can swim 250 feet, tread water for 6 minutes, and swim 35 feet underwater without taking a breath. Do you satisfy the requirements of the course? Explain.

15. The maximum volume of an American white pelican's bill is about 700 cubic inches. A pelican scoops up 100 cubic inches of water. Write and solve an inequality that represents the additional volumes the pelican's bill can contain. *(Section 2.2)*

16. You save \$15 per week to purchase one of the bikes shown. *(Section 2.3 and Section 2.4)*



a. Write and solve an inequality to find the numbers of weeks you need to save to purchase a bike.

b. Your parents give you \$65 to help you buy the new bike. How does this affect you answer in part (a)? Use an inequality to justify your answer.