

1. Solve each equation and verify the solution.

a. $32.3 = m - 6.9$

b. $b + 19 = 12$

c. $-76.05 = -9b$

d. $\frac{w}{-4} = 9$

2. Solve each equation and verify the solution.

a. $-5x - 7 = -2$

b. $\frac{m}{2} + 12 = 15$

3. Solve each equation and verify the solution.

a. $-3(x - 2) = 15$

b. $4\left(\frac{x}{5} - 1\right) = 7$

4. Solve each equation, and verify the solution.

a. $4x + 3 = 2x - 5$

b. $3.9 - 2.7y = 5.1 - 0.9y$

c. $-3(x + 1) = 4(2x - 9)$

d. $2(t - 8) = 4(2t - 19)$

e. $-\frac{1}{3} + 2m = -\frac{1}{5}$

f. $\frac{3}{2}x + \frac{4}{3} = \frac{5}{8}x + \frac{5}{2}$

5. For each statement below, write then solve an equation to determine the number.

a. A number divided by negative four is three.

b. Five less than three times a number is seven.

c. Fifteen more than twice a number is six more than five times the number.

6. State 3 values of the variable that satisfy each inequality.

a. $c < 7$

b. $a \geq -3$

c. $5 < n$

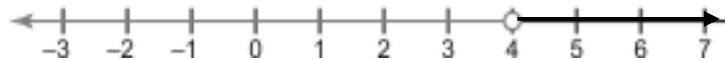
d. $-1 \geq y$

7. Write the inequality that is graphed on each number line.

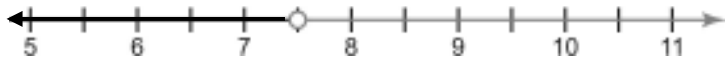
a.



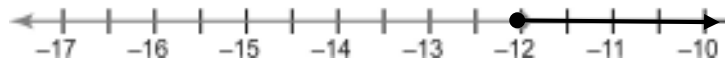
b.



c.



d.



8. Write an inequality to describe each situation, then graph it.

a. The gas tank in a car contains no more than 55 L of gas. _____



b. The minimum age you must be to watch the movie is 13. _____



9. Match each inequality with the graph of its solution.

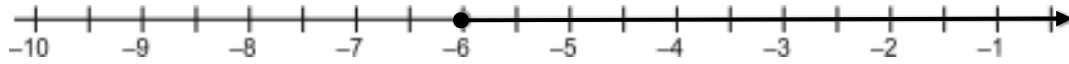
a. $g + 3 < 9$

b. $5 \geq m - 2$

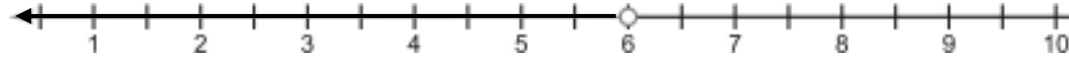
c. $2 + y \geq -4$

d. $-1 < f + 3$

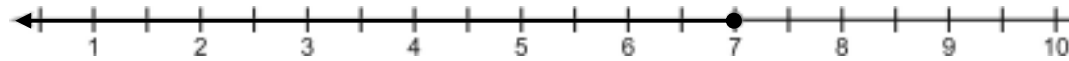
i.



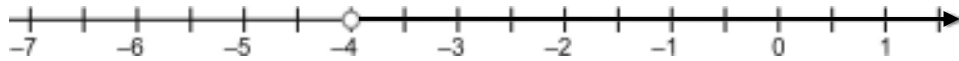
ii.



iii.



iv.



10. Solve, then graph each inequality.

a. $7t - 4 > 3t + 12$



b. $4.2s - 15.25 \leq 4 - 1.3s$



c. $\frac{1}{2} + \frac{4}{7}p > \frac{13}{10}$



11. Do not solve each inequality. Determine which of the given numbers are solutions of the inequality.

a. $3t < -5$, -3 , 0 , 1

b. $5 - 3d \geq 2 - d$, -5 , 0 , 5

12. Solve each inequality and graph the solution.

a. $-3.5a < -1.3a + 6.6$



b. $-\frac{5f}{6} - \frac{2}{3} > \frac{4}{3}$



c. $1.3 - 2.5x \leq -1.1x - 0.52$



13. Nadia gets paid \$1000 per month plus 5% commission on her sales. She wants to earn at least \$2200 this month. Write an inequality to represent this situation, then solve it to determine how much Nadia must sell to reach her goal.