

Tell whether the given number is a solution of $5x - 10 > 2x + 4$.

1. 8

2. 5

3. 4

4. -2

Solve the inequality and graph on a number line.

5. $2y + 7 > 11$

6. $11 - 4z < -1$

7. $19 \geq \frac{x}{90} - 25$

8. $14p - 5 \geq -3p + 114$

9. $-6n - 3 < -9$

10. $3 + \frac{x}{-3} \leq 7$

11. $45 - 3x > 4x + 4$

12. $\frac{x-2}{3} > 4$

$$13. \frac{-5x-8}{4} \leq -22$$

$$14. -3 \leq \frac{2x+4}{4}$$

15. At a video store, you have two options for renting movies. You can pay \$4 per movie, or you can pay a onetime membership fee of \$10 and then pay only \$1.50 per movie. After how many movie rentals will the cost of the membership be less than the cost of renting movies without the membership?

16. Describe and correct the error in solving the inequality $4x > 6x + 3$.

$$\begin{aligned} 4x &> 6x + 3 \\ 4x - 6x &> 6x + 3 - 6x \\ -2x &> 3 \\ \frac{-2x}{-2} &> \frac{3}{-2} \\ x &> -\frac{3}{2} \end{aligned}$$