

Solve the following inequalities for x , then graph the solution on the number line.

1. $3x - 5 < -2$

2. $4x + 3 > -7$

3. $2x + 11 \leq 5x - 10$

4. $4x - 3 \geq -5x + 12$

5. $\frac{3x}{2} - 3 \leq 2x - 1$

6. $2(x - 3) < 4(2 + x) - 2x$

7. $5(4x - 1) \geq \frac{5}{7}(2x + 3)$

$$8. 2(1 - x) + 4x < 20 - x$$

$$9. 4x + 3 \geq 2(2x + 4)$$

$$10. \frac{x}{2} + \frac{5}{3} < \frac{x}{12} + x$$

$$11. \frac{1}{3} \left(\frac{9}{2} - x \right) \geq 0$$

$$12. x(x - 4) + 2x < (x + 1)^2$$

Don't forget to graph the solution, too.

$$1. x < 1$$

$$2. x > -\frac{5}{2}$$

$$3. x \geq 7$$

$$4. x \geq \frac{5}{3}$$

$$5. x \geq -4$$

6. All real numbers

$$7. x \geq \frac{5}{13}$$

$$8. x < 6$$

9. No Solution

$$10. x > \frac{20}{7}$$

$$11. x \leq \frac{9}{2}$$

$$12. x > -\frac{1}{4}$$