

Solving Inequalities

Solve each inequality, justifying each step you use.

1.

$x - 5 < 35$	Justification

2.

$x + 68 \geq 75$	Justification

3.

$2x - 4 \leq 10$	Justification

4.

$5 - 4x \leq 17$	Justification

5.

$\frac{x}{-3} > -\frac{10}{9}$	Justification

6.

$2(x - 3) \leq 3x - 2$	Justification

Solve each inequality and graph the solution on the number line.

7. $x - 8 > -20$

8. $x + 11 > 13$

Solve each multi-step inequality.

9. $4x + 3 < -1$

10. $4 - 6x \leq 2(2x + 3)$

11. $5(4x + 3) \geq 9(x - 2) - x$

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