

Algebra 2
Solving Inequalities

Name: _____
Period: _____

Solve each inequality. Write your solution in interval notation, then graph it on a number line.

1. $x-4 > 3$ 2. $3y+8 \geq -10$ 3. $9 \geq -2m-1$ 4. $3-(c+5) \geq 2$ 5. $2(x-3)+5 \leq -4$
6. $12-3(w+7) > 15$ 7. $167 < 6+7(2-7r)$ 8. $5+2(4-x) < -3$ 9. $-3-6(4x+6) > -111$

Simplify. **No calculators!**

10. $\frac{52}{65}$ 11. $\frac{34}{51}$ 12. $\frac{84}{36}$ 13. $\frac{3}{2} + \frac{4}{5}$ 14. $\frac{3}{2} \cdot \frac{4}{5}$ 15. $\frac{3}{4} + \frac{5}{6}$
16. $\frac{3}{4} \cdot \frac{5}{6}$ 17. $2\left(\frac{6}{7}\right)$ 18. $-3\left(\frac{x}{2}\right)$ 19. $\frac{5}{3} - 3$ 20. $\frac{13}{5} - \frac{3}{2}$

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