

Equation Development 3.2

Algebra 2

Solve, check, and graph the following equations and inequalities.

1)  $-3x + 7 < -17$

2)  $-4x > -9x + 30$

3)  $-12x + 6 > -6(4 + 3x)$

4)  $66 = -3x^2 - 9$

5)  $-x + 11 = 5x - 7$

6)  $12 - 5x - 32 + 15x = 30$

7)  $\frac{21}{32}X = \frac{3}{19}$

8)  $\frac{12}{21}X - 3 = 17$

9)  $\frac{1}{5}x + 3 + \frac{3}{4}x = 2$

10)  $\frac{1}{5}X + 7 = \frac{2}{5}X - 5$

11)  $-3|c - 9| = 12$

12)  $|3t + 6| + 5 = 38$

13)  $-4|5p| + 7 = -33$

Solve and graph the compound inequalities.

14)  $-11 \geq c > 2$

15)  $24 > -6v \geq -42$

16)  $p > 5$  or  $3p \leq -6$

17)  $5b + 2 < -33$  or  $2b - 7 > 13$

18)  $-3m > 12$  or  $8m > 0$

19)  $-18 < 4m - 2 < 14$

20)  $-15 < -3m + 3 < 42$

Solve each literal equation.

21)  $3\underline{x} + 3y = 12$

22)  $4\underline{y} - 2x = -8$

23)  $\frac{1}{2}\underline{c} = 3d + 7$

24)  $\frac{3}{4}\underline{f} + \frac{3}{2}g = 8$