

Equation Development 3.3

Algebra 2

Solve, check, and graph the following equations.

1)  $100 = 36 - 4m^2$

2)  $-6g^2 - 13 = -163$

3)  $5(7x - 3) = 29x + 51$

4)  $2x - 24 \geq 8x$

5)  $27 \geq -7x + 4x$

6)  $13x + 39 \geq 67 + 9x$

7)  $\frac{3}{8}x = \frac{5}{12}$

8)  $\frac{4}{5}x + 4 = 12$

9)  $\frac{3}{14}x + \frac{5}{14}x + 21 = 40$

10)  $\frac{4}{5}x - 2 = \frac{3}{8}x + 32$

11)  $|a - 7| = 15$

12)  $|-3d + 6| = 27$

13)  $-2|5p| + 11 = 61$

Solve and graph the following compound inequalities.

14)  $-12 < 2m \leq 4$

15)  $m - 9 \leq -15$  or  $-3m \leq -12$

16)  $-18 \geq -9m > -54$

17)  $\frac{-2}{3}c = -\frac{5}{9}d$

18)  $-13 = tv$

19)  $\frac{1}{6}pqr = -4t$

20)  $16 = -6a - 2b$