Algebra 2 Equation Development 2.2

Solve, check, and graph the following equations.

1) $-7 = -13 + \dfrac{m^2}{6}$

2) $60 = -x + 7x$

3) $-25 - 6x = -79 + 3x$

4) $-8(-2t + 5) = 24$

5) $-2p + 5 > 13$

6) $-14x + 5x \geq -54$

7) $4w - 10 - 11w < 30 - 3w$

8) $-5(4 + x) > 15$

9) $x + \dfrac{2}{5} = \dfrac{12}{5}$

10) $x + \dfrac{7}{9} = \dfrac{4}{3}$

11) $\dfrac{4}{13}X = \dfrac{3}{12}$

12) $\dfrac{5}{21}X = \dfrac{30}{23}$

13) $\dfrac{2}{3}X + 2 = 5$

14) $\dfrac{1}{2}X - 3 = 5$

15) $\dfrac{2}{3}x + \dfrac{7}{3}x + 5 = 7$

16) $\dfrac{2}{3}x - \dfrac{1}{3}x + 4 = 6$

Evaluate each expression if a = -4, b = 7, and c = -2.5

17) $\left|-5b\right|$ 18) $\left|8c\right|$ 19) $\left|12a\right|$ 20) $\left|abc\right|$ 21) $-\left|-ac\right|$

Solve, check, and graph the following equations.

22) $\left|3v\right| = 15$ 23) $\left|2k - 7\right| = 23$ 24) $-2\left|c - 5\right| = 16$ 25) $-5\left|m + 8\right| = -20$

Solve the following literal equations in terms of the underlined variable.

26) $g - 3\underline{f} = 15$ 27) $\dfrac{m}{5} - n = 30$ 28) $\dfrac{2}{5}\underline{c} + d = 6$ 29) $4f + 3\underline{h} = 2\underline{h} + 7$

30) $-\dfrac{7}{8}\underline{r} = \dfrac{3}{4}t$ 31) $7 = -\underline{v}w$ 32) $4(\underline{m} + 2k) = 8$ 33) $\dfrac{2}{3}(\underline{m} + 3n) = 12$