

Solve, check, and graph the following equations.

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

$$\frac{+13}{+13}$$

$$(6) \quad 6 = \frac{m^2}{6} \quad (6)$$

$$36 = m^2$$

$$\pm 6 = m$$

2) $60 = -x + 7x$

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

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

$$x = 6$$



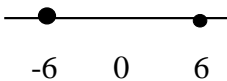
$$\checkmark -7 = -13 + \frac{(-6)^2}{6} \quad \checkmark -7 = -13 + \frac{(6)^2}{6}$$

$$-7 = -13 + 6$$

$$-7 = -7 \checkmark$$

$$-7 = -13 + 6$$

$$-7 = -7 \checkmark$$



5) $-2p + 5 > 13$

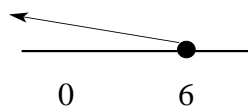
6) $-14x + 5x \geq -54$

$$\frac{-9x}{-9} \geq \frac{-54}{-9}$$

$$x \leq 6$$

$$\checkmark -14(0) + 5(0) \geq -54$$

$$0 \geq -54 \checkmark$$



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

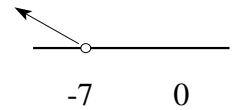
8) $\frac{-5(4+x)}{-5} > \frac{15}{-5}$

$$4 + x < -3$$

$$x < -7$$

$$\checkmark -5(4 + (-8)) > 15$$

$$-4 < -3 \checkmark$$



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

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

$$-\frac{7}{9} \quad -\frac{7}{9}$$

$$x = \frac{5}{9}$$

$$\checkmark \frac{5}{9} + \frac{7}{9} = \frac{4}{3}$$

$$\frac{4}{3} = \frac{4}{3} \checkmark$$



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

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

$$x = \frac{126}{23}$$

$$13) \frac{2}{3}x + 2 = 5$$



0 9/2

$$14) \frac{1}{2}x - 3 = 5$$

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

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

$$\frac{9}{3}x = 2$$

$$3x = 2$$

$$x = 2/3$$

$$\checkmark \frac{2}{3} \left(\frac{2}{3} \right) + \frac{7}{3} \left(\frac{2}{3} \right) + 5 = 7$$

$$\frac{4}{9} + \frac{14}{9} + 5 = 7$$

$$\frac{7}{9} + 5 = 7$$

0 2/3

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

$$17) \left| -5b \right|$$

$$\left| -5(7) \right|$$

$$\left| -35 \right|$$

$$35$$

$$18) \left| 8c \right|$$

$$19) \left| 12a \right|$$

48

$$20) \left| abc \right|$$

$$21) - \left| -ac \right|$$

-10

Solve, check, and graph the following equations.

$$22) \left| 3v \right| = 15$$

$$23) \left| 2k - 7 \right| = 23$$

$$24) -2 \left| c - 5 \right| = 16$$

$$25) -5 \left| m + 8 \right| = -20$$

$$3v = 15$$

$$v = 5$$

$$3v = -15$$

$$v = -5$$

$$m = -4 \quad m = -12$$

$$\checkmark \left| 3(5) \right| = 15$$

$$\left| 15 \right| = 15$$

$$\checkmark \left| 3(-5) \right| = 15$$

$$\left| -15 \right| = 15$$

$$15 = 15 \checkmark$$

$$15 = 15 \checkmark$$



-5 0 5

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

$$26) \quad g - 3\underline{f} = 15$$

$$\underline{-g} \quad \underline{-g}$$

$$\underline{-3f} = \underline{-g} + 15 \quad \underline{c} = \frac{\underline{-5d}}{2} + 15$$
$$-3 \quad -3$$

$$f = \frac{\underline{g}}{3} - 5$$

$$27) \quad \frac{\underline{m}}{5} - n = 30$$

$$28) \quad \frac{2}{5}\underline{c} + d = 6$$

$$29) \quad 4f + 3\underline{h} = 2\underline{h} + 7$$

$$30) \quad -\frac{7}{8}\underline{r} = \frac{3}{4}\underline{t}$$

$$31) \quad 7 = -\underline{y}w$$

$$32) \quad 4(\underline{m} + 2k) = 8$$

$$33) \quad \frac{2}{3}(\underline{m} + 3n) = 12$$

$$(8) - \frac{7}{8} = \frac{3}{4}(8)$$

$$m = -2k + 2$$

$$-7r = 6t$$

$$r = -\frac{6}{7}t$$