

## Problems

3.7)

$$(a) \quad 7r = 63$$

$$(b) \quad r = 9$$

3.8)

$$3t - 7 - 6 + 2t = 4t + 2 - 6t$$

$$(a) \quad 5t - 13 = -2t + 2$$

$$(b) \quad \text{fengo que sumar } 2t$$

$$7t - 13 = 2$$

$$(c) \quad 7t = 15$$

$$t = \frac{15}{7}$$

$$(d) \quad 5\left(\frac{15}{7}\right) - 13 = -2\left(\frac{15}{7}\right) + 2$$

$$\frac{75}{7} - 13 = -\frac{30}{7} + 2$$

$$\frac{105}{7} = 15$$

$$15 = 15$$

3.9)

$$(a) \quad 3t + 9 = -13$$

$$3t = -22$$

$$t = -\frac{22}{3}$$

$$(b) \quad 5 - \frac{y}{7} = 19$$

$$5 - 19 = \frac{y}{7}$$

$$-14(7) = y$$

$$-98 = y$$

$$(c) \quad 8 - 3x = -6 + 2x$$

$$14 = 5x$$

$$\frac{14}{5} = x$$

$$(d) \quad 2 - y + 10 + \frac{y}{2} = 3y - \frac{7}{3} + 2y$$

$$\frac{35}{3} + \frac{7}{3} = 5y + y - \frac{y}{2}$$

$$\frac{43}{3} = \frac{12}{2}y - \frac{1}{2}y$$

$$\frac{43}{3} = \frac{11}{2}y$$

$$y = \frac{43 \cdot 2}{11} = \frac{86}{11}$$

3.10)

$$(a) \quad 2z + 3 - 4 = 3z - 5 - z$$

$$-1 = -5$$

No hay soluciones.

$$(b) \quad 3r + 5 + r = 7r - 2 + 7 - 3r$$

$$4r + 5 = 4r + 5$$

$$5 = 5$$

Todos posible valor es solución.

3.11)

$$2x + 7 = 3$$

$$2x = -4$$

$$x = -2$$

$$6x - 10 = -2$$

$$(a) \quad x = -2$$

$$(b) \quad 6(-2) - 10 = -2$$

$$-26 = 8$$

$$6 = -4$$

## Exercises

3.2.1)

$$(a) \quad 3x - 4 = 17$$

$$3x = 21$$

$$x = 7$$

$$(b) \quad 4 - 2r = 17 + 5r$$

$$-13 = 7r$$

$$-\frac{13}{7} = r$$

$$(c) \quad 4 + 2.3y = 1.7y - 20$$

$$0.6y = -24$$

$$\frac{6}{10}y = -24$$

$$y = \frac{-24 \cdot 10}{6} = -40$$

$$(d) \quad -2t + \frac{3}{2} = \frac{t}{4} - 12$$

$$-\frac{8}{4}t - \frac{1}{4}t = -\frac{24}{2} - \frac{3}{2}$$

$$-\frac{9}{4}t = -\frac{27}{2}$$

$$t = \frac{27 \cdot 4}{9 \cdot 2} = 6$$

$$(e) -27u + 13v - 5 = 3 - 14v$$

$$-27u + 13v + 14v = 3 + 5$$

$$0 = 8$$

No existen soluciones.

$$(f) 3 - 2y + 5 = 8 - 17y$$

$$2y = 17y$$

$$0 = 15y$$

$$y = 0$$

$$(g) -3(r+7) = 5(3-r)$$

$$-3r - 21 = 15 - 5r$$

$$2r = 36$$

$$r = 18$$

$$(h) 3x - 21 = 5x - 10$$

$$-11 = 2x$$

$$-\frac{11}{2} = x$$

3.2.2)

$$3x - 7 = x/2 + 9$$

Porque  $x/2$  da una fracción y  $x/2 + 9$  es una fracción y es diferente al lado izquierdo.

3.2.3)

$$3y + 2a = 4y + 7 - y + 3$$

$$3y + 2a = 3y + 10$$

$$2a = 10$$

$$a = \underline{5}$$

3.2.4)

$$3x - 7 = 38$$

$$3x = 45$$

$$x = 15$$

La respuesta es 9

$$Ax - 7 = 38$$

$$Ax = 45$$

$$x = \frac{45}{A}$$

$$\frac{45}{A} = 9$$

$$A = \underline{5}$$