

## Two-Step Equations HW Answers

$$1) 3m - 3 = -9$$

$$3m - 3 + 3 = -9 + 3 \text{ (add. prop. =)}$$

$$3m = -6$$

$$\frac{3m}{3} = \frac{-6}{3} \text{ (div. prop. =)}$$

$$m = -2$$

$$2) -1 - 3K = 2$$

$$-1 + 1 - 3K = 2 + 1 \text{ (add. prop. =)}$$

$$-3K = 3$$

$$\frac{-3K}{-3} = \frac{3}{-3} \text{ (div. prop. =)}$$

$$K = -1$$

$$3) -2 - 5r = 43$$

$$-2 + 2 - 5r = 43 + 2 \text{ (add. prop. =)}$$

$$-5r = 45$$

$$\frac{-5r}{-5} = \frac{45}{-5} \text{ (div. prop. =)}$$

$$r = -9$$

$$4) \frac{p}{1} - 1 = -1$$

$$\frac{p}{1} - 1 + 1 = -1 + 1 \text{ (add. prop. =)}$$

$$\frac{p}{1} = 0$$

$$p = 0$$

$$5) -2 + 2a = -16$$

$$-2 + 2 + 2a = -16 + 2 \text{ (add. prop. =)}$$

$$2a = -14$$

$$\frac{2a}{2} = \frac{-14}{2} \text{ (div. prop. =)}$$

$$a = -7$$

$$6) 4 + \frac{x}{1} = 4$$

$$4 + x = 4$$

$$4 - 4 + x = 4 - 4 \text{ (subt. prop. =)}$$

$$x = 0$$

$$7) 1 + \frac{n}{4} = -1$$

$$1 - 1 + \frac{n}{4} = -1 - 1 \text{ (subt. prop. =)}$$

$$\frac{n}{4} = -2$$

$$4 \cdot \frac{n}{4} = 4 \cdot -2 \text{ (mult. prop. =)}$$

$$n = -8$$

$$8) \frac{x}{4} - 5 = -6$$

$$\frac{x}{4} - 5 + 5 = -6 + 5 \text{ (add. prop. =)}$$

$$\frac{x}{4} = -1$$

$$4 \cdot \frac{x}{4} = 4 \cdot -1 \text{ (mult. prop. =)}$$

$$x = -4$$

$$9) \frac{-6+x}{3} = -3$$

$$3 \cdot \frac{-6+x}{3} = 3 \cdot -3 \text{ (mult. prop. =)}$$

$$-6+x = -9$$

$$-6+6+x = -9+6 \text{ (add. prop. =)}$$

$$x = -3$$

$$10) \frac{3+n}{7} = 2$$

$$7 \cdot \frac{3+n}{7} = 2 \cdot 7 \text{ (mult. prop. =)}$$

$$3+n = 14$$

$$3-3+n = 14-3 \text{ (subt. prop. =)}$$

$$n = 11$$

$$11) 6 + \frac{x}{5} = 3$$

$$6-6 + \frac{x}{5} = 3-6 \text{ (subt. prop. =)}$$

$$\frac{x}{5} = -3$$

$$5 \cdot \frac{x}{5} = 5 \cdot -3 \text{ (mult. prop. =)}$$

$$x = -15$$

$$12) 2 - 3n = 11$$

$$2-2-3n = 11-2 \text{ (subt. prop. =)}$$

$$-3n = 9$$

$$\frac{-3n}{-3} = \frac{9}{-3} \text{ (div. prop. =)}$$

$$n = -3$$

$$13) -4v + 1 = 49$$

$$-4v + 1 - 1 = 49 - 1 \text{ (subt. prop. =)}$$

$$-4v = 48$$

$$\frac{-4v}{-4} = \frac{48}{-4} \text{ (div. prop. =)}$$

$$v = -12$$

$$14) \frac{b+5}{2} = 2$$

$$2 \cdot \frac{b+5}{2} = 2 \cdot 2 \text{ (mult. prop. =)}$$

$$b+5 = 4$$

$$b+5-5 = 4-5 \text{ (subt. prop. =)}$$

$$b = -1$$

$$15) -7 + \frac{k}{4} = -11$$

$$-7+7 + \frac{k}{4} = -11+7 \text{ (add. prop. =)}$$

$$\frac{k}{4} = -4$$

$$4 \cdot \frac{k}{4} = 4 \cdot -4 \text{ (mult. prop. =)}$$

$$k = -16$$

$$16) \frac{3+a}{4} = -2$$

$$4 \cdot \frac{3+a}{4} = 4 \cdot -2 \text{ (mult. prop. =)}$$

$$3+a = -8$$

$$3-3+a = -8-3 \text{ (subt. prop. =)}$$

$$a = -11$$

$$17) 7 = \frac{x}{8} + 8$$

$$7 - 8 = \frac{x}{8} + 8 - 8 \text{ (subt. prop. =)}$$

$$-1 = \frac{x}{8}$$

$$8 \cdot -1 = 8 \cdot \frac{x}{8} \text{ (mult. prop. =)}$$

$$-8 = x$$

$$18) \frac{x}{4} - 6 = -7$$

$$\frac{x}{4} - 6 + 6 = -7 + 6 \text{ (add. prop. =)}$$

$$\frac{x}{4} = -1$$

$$4 \cdot \frac{x}{4} = 4 \cdot -1 \text{ (mult. prop. =)}$$

$$x = -4$$

$$19) 3e + 2 = 8 \quad e = \# \text{ of erasers}$$

$$3e + 2 - 2 = 8 - 2 \text{ (subt. prop. =)}$$

$$3e = 6$$

$$\frac{3e}{3} = \frac{6}{3} \text{ (div. prop. =)}$$

$$e = 2$$

$$20) 10s + 18 = 348$$

$$10s + 18 - 18 = 348 - 18 \text{ (subt. prop. =)}$$

$$10s = 330$$

$$\frac{10s}{10} = \frac{330}{10} \text{ (div. prop. =)}$$

$$s = 33$$

$s = \#$   
students  
on a  
bus