

# 2.1-2.4 Review

Name: Answer Key

Card #1

$$\begin{array}{r} 7 = x + 20 \\ -20 \quad -20 \\ \hline -13 = x \end{array}$$

$$x = -13$$

Card #2

$$\begin{array}{r} v - 7 = -8 \\ +7 \quad +7 \\ \hline \end{array}$$

$$v = -1$$

Card #3

$$\begin{array}{r} -7r = 42 \\ \frac{-7r}{-7} = \frac{42}{-7} \\ \hline \end{array}$$

$$r = -6$$

Card #4

$$6 \cdot \frac{q}{6} = -3 \cdot 6$$

$$q = -18$$

Card #5

$$\begin{array}{r} 2x - 4 = 16 \\ +4 \quad +4 \\ \hline \end{array}$$

$$\frac{2x}{2} = \frac{20}{2}$$

$$x = 10$$

Card #6

$$-3(x+4) = 27$$

$$\begin{array}{r} -3x - 12 = 27 \\ +12 \quad +12 \\ \hline \end{array}$$

$$\begin{array}{r} -3x = 39 \\ \frac{-3x}{-3} = \frac{39}{-3} \\ \hline \end{array}$$

$$x = -13$$

Card #7

$$\begin{array}{r} 20 + 6h = 10h \\ -6h \quad -6h \\ \hline \end{array}$$

$$\frac{20}{4} = \frac{4h}{4}$$

$$5 = h$$

$$h = 5$$

Card #8

$$15y - 2y = 9y + 12$$

$$\begin{array}{r} 13y = 9y + 12 \\ -9y \quad -9y \\ \hline \end{array}$$

$$\frac{4y}{4} = \frac{12}{4}$$

$$y = 3$$

Card #9

$$d + 8 - 3d = 5d - 6$$

$$\begin{array}{r} -2d + 8 = 5d - 6 \\ +2d \quad +2d \\ \hline \end{array}$$

$$\begin{array}{r} 8 = 7d - 6 \\ +6 \quad +6 \\ \hline \end{array}$$

$$\frac{14}{7} = \frac{7d}{7}$$

$$2 = d$$

$$d = 2$$

Card #10

$$4(p+5) = 2 + 2(p-3)$$

$$4p + 20 = 2 + 2p - 6$$

$$4p + 20 = 2p - 4$$

$$2p + 20 = -4$$

$$\frac{2p}{2} = \frac{-24}{2}$$

$$p = -12$$

Card #11

$$\frac{1}{4}(c-3) = \frac{9}{4}$$

$$\left(\frac{1}{4}c - \frac{3}{4} = \frac{9}{4}\right) \cdot 4$$

$$c - 3 = 9$$

$$c = 12$$

Card #12

$$6\left(2h + \frac{1}{2}\right) = 14 - (8h-1)$$

$$12h + 3 = 14 - 8h + 1$$

$$12h + 3 = -8h + 15$$

$$20h + 3 = 15$$

$$\frac{20h}{20} = \frac{12}{20}$$

$$h = \frac{3}{5}$$

Card #13

$$3 \cdot \frac{j-7}{3} = 9 \cdot 3$$

$$j-7 = 27$$

$$j = 34$$

$$j = 34$$

Card #14

$$\left(\frac{h}{3} + \frac{5h}{6} = 7\right) \cdot 6$$

$$2h + 5h = 42$$

$$7h = 42$$

$$h = 6$$

Card #15

$$r + 7 - 3r = 5r - 3 + 2 - 7$$

$$-2r + 7 = -2r - 1$$

$$7 \neq -1$$

NO Solution

Card #16

$$5(w-2) + 6 = 2w + 10 + 3w - 4$$

$$5w - 10 + 6 = 5w - 4$$

$$5w - 4 = 5w - 4$$

Infinitely Many Solutions

Card #17

d = packs of DVDs

$$16d = 160$$

d = 10 packs of DVDs

Card #18

h = hours

$$12 + 8h = 76$$

$$8h = 64$$

h = 8 hours

Card #19

c = cost of candy bar

$$2 + 6c = 20$$

$$\frac{6c}{6} = \frac{18}{6}$$

c = \$3 per candy bar

Card #20

t = tickets

$$25t = 150$$

$$t = 6 \text{ tickets}$$

1 ticket for Xavier + 5 friends

Card #21

m = miles

$$6(35) + 0.10m = 6(25) + 0.25m$$

$$175 + 0.10m = 125 + 0.25m$$

$$50 + 0.10m = 0.25m$$

$$\frac{50}{0.15} = \frac{0.15m}{0.15}$$

334 miles

m = 333 1/2