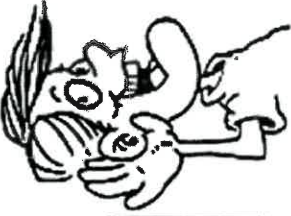


Name: **KEY**

Did You Hear About...

1	2	3	4	5	6	7	8	9
THE	GUY	WHO	WOKE	UP	FROM	HIS	BRAIN	TRANSPLANT
10	11	12	13	14	15	16	17	???
OPERATION	AND	SAID	HE	HAD	CHANGED	HIS	MIND	



Answers 1-9

- 3 $-\frac{2}{5}$
- 8 -92
- 6 $-3\frac{1}{3}$
- 1 32
- 4 $7\frac{1}{2}$
- 2 $-2\frac{5}{6}$
- 7 -100
- 5 28
- 9 $-1\frac{1}{4}$
- 1 $5\frac{2}{3}$
- 5 $4\frac{1}{4}$
- 9 75
- 1 $3\frac{1}{2}$

Solve each equation or problem. Write the word next to the correct answer in the box that contains the exercise number.

- 1 $2n + 5 = 20$
- 2 $8y - 3 = -13$
- 3 $12 - 5b = 14$
- 4 $\frac{1}{4}m + 9 = -16$
- 5 $2 - \frac{x}{15} = -3$
- 6 $\frac{5}{8}a - 27 = -7$
- 7 $7x - 11 - 4x = 6$
- 8 $32 = y - 8 - 13y$
- 9 $-10 = -12 + \frac{4}{7}n$
- 10 $4 \cdot 9 = 30 - \frac{k}{16}$
- 11 $\frac{d + 8}{3} = -14$
- 12 $-\frac{1}{5}p + \frac{9}{5}p + 6 = 30$
- 13 $\frac{4m - 7}{2} = 18$
- 14 $10 + x - \frac{1}{3}x = 0$
- 15 $5 = \frac{15 - 24a}{6}$

Answers 10-17

- 90
- $10\frac{3}{4}$
- $-\frac{5}{8}$
- $-\frac{1}{4}$
- 96
- 64
- 48
- 15
- 62
- 15
- 57
- 72
- 50

Equations and Problems:
Solving Multi-Step Equations With Like Terms

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$$\textcircled{1} 2n + 5 = 20$$

$$\begin{array}{r} -5 \quad -5 \\ \hline 2n = \frac{15}{2} \end{array}$$

$$n = 7.5$$

$$n = 7\frac{1}{2}$$

$$\textcircled{2} 8y - 3 = -13$$

$$\begin{array}{r} +3 \quad +3 \\ \hline 8y = \frac{-10}{8} \end{array}$$

$$y = -1\frac{2}{8}$$

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

$$\textcircled{3} 12 - 5b = 14$$

$$\begin{array}{r} -12 \quad -12 \\ \hline -5b = \frac{2}{-5} \end{array}$$

$$b = -\frac{2}{5}$$

$$\textcircled{4} \frac{1}{4}m + 9 = -16$$

$$\begin{array}{r} -9 \quad -9 \\ \hline \frac{1}{4}m = \frac{-25}{4} \end{array}$$

$$4 \times \frac{1}{4}m = -25 \times 4$$

$$m = -100$$

$$\textcircled{5} 2 - \frac{x}{15} = -3$$

$$\begin{array}{r} -2 \quad -2 \\ \hline -\frac{x}{15} = -5 \end{array}$$

$$-\frac{x}{15} = -5$$

$$-15 \times -\frac{x}{15} = -5 \times -15$$

$$x = 75$$

$$\textcircled{6} \frac{5}{8}a - 27 = -7$$

$$\begin{array}{r} +27 \quad +27 \\ \hline \frac{5}{8}a = 20 \end{array}$$

$$\frac{5}{8}a = 20$$

$$\frac{8}{5} \times \frac{5}{8}a = 20 \times \frac{8}{5}$$

$$a = 32$$

$$\textcircled{7} 7x - 11 - 4x = 6$$

$$3x - 11 = 6$$

$$\begin{array}{r} +11 \quad +11 \\ \hline 3x = 17 \end{array}$$

$$\frac{3x}{3} = \frac{17}{3}$$

$$x = 5\frac{2}{3}$$

$$\textcircled{8} 32 = y - 8 - 13y$$

$$32 = -12y - 8$$

$$\begin{array}{r} +8 \quad +8 \\ \hline 40 = -12y \end{array}$$

$$\frac{40}{-12} = \frac{-12y}{-12}$$

$$-3\frac{4}{12} = y$$

$$-3\frac{1}{3} = y$$

$$\textcircled{9} -10 = -12 + \frac{4}{7}n$$

$$\begin{array}{r} +12 \quad +12 \\ \hline 2 = \frac{4}{7}n \end{array}$$

$$2 = \frac{4}{7}n$$

$$\frac{7}{4} \times \frac{4}{7} \times \frac{2}{1} = \frac{7}{4} \times \frac{4}{7} n$$

$$\frac{7}{2} = n$$

$$3\frac{1}{2} = n$$

$$10 \quad 4 \cdot 9 = 30 - \frac{k}{16}$$

$$\begin{array}{r} 36 = 30 - \frac{k}{16} \\ -30 \quad -30 \quad - \\ \hline 6 = -\frac{k}{16} \\ -16 \times 6 = -\frac{k}{16} \times -16 \end{array}$$

$$\boxed{-96 = k}$$

$$11 \quad \frac{d+8}{3} = -14$$

$$3 \times \frac{d+8}{3} = 3(-14)$$

$$\begin{array}{r} d+8 = -42 \\ -8 \quad -8 \\ \hline d = -50 \end{array}$$

$$\boxed{d = -50}$$

$$12 \quad -\frac{1}{5}p + \frac{9}{5}p + 6 = 30$$

$$\begin{array}{r} \frac{8}{5}p + 6 = 30 \\ -6 \quad -6 \\ \hline \frac{8}{5}p = 24 \end{array}$$

$$\frac{5}{8} \times \frac{8}{5}p = 24 \times \frac{5}{8}$$

$$\boxed{p = 15}$$

$$13 \quad \frac{4m-7}{2} = 18$$

$$2 \times \frac{4m-7}{2} = 18 \times 2$$

$$\begin{array}{r} 4m-7 = 36 \\ +7 \quad +7 \\ \hline 4m = 43 \\ \frac{4m}{4} = \frac{43}{4} \end{array}$$

$$\boxed{m = 10 \frac{3}{4}}$$

$$14 \quad 10 + x - \frac{1}{3}x = 0$$

$$\begin{array}{r} 10 + \frac{2}{3}x = 0 \\ -10 \quad -10 \\ \hline \frac{2}{3}x = -10 \end{array}$$

$$\frac{3}{2} \times \frac{2}{3}x = -10 \times \frac{3}{2}$$

$$\boxed{x = -15}$$

$$15 \quad 5 = \frac{15-24a}{6}$$

$$6 \times 5 = 6 \times \frac{15-24a}{6}$$

$$\begin{array}{r} 30 = 15 - 24a \\ -15 \quad -15 \\ \hline 15 = -24a \end{array}$$

$$\frac{15}{-24} = \frac{-24a}{-24}$$

$$\boxed{-\frac{5}{8} = a}$$

16 So far, 37 miles of a new highway have been completed. This is one mile less than two thirds of the entire length. How long will the new highway be when complete?

$$\begin{array}{r} 37 = \frac{2}{3}x - 1 \\ +1 \quad +1 \\ \hline 38 = \frac{2}{3}x \end{array}$$

$$\frac{3}{2} \times \frac{19}{38} = \frac{3}{2} \times \frac{2}{3}x$$

$$57 = x$$

$$\boxed{57 \text{ miles}}$$

17 Buck rented a truck for \$39.95 plus \$0.32 per mile. Before returning the truck, he filled the tank with gasoline, which cost \$9.80. If the total cost was \$70.23, how far was the truck driven?

$$39.95 + 0.32m + 9.80 = 70.23$$

$$\begin{array}{r} 0.32m + 49.75 = 70.23 \\ -49.75 \quad -49.75 \\ \hline 0.32m = 20.48 \end{array}$$

$$\frac{0.32m}{0.32} = \frac{20.48}{0.32}$$

$$m = 64$$

$$\boxed{64 \text{ miles}}$$

$$\begin{array}{r} 64. \\ 32 \overline{) 20.48} \\ \underline{-192} \\ 128 \\ \underline{-128} \\ 0 \end{array}$$

$$\begin{array}{r} 39.95 \\ + 9.80 \\ \hline 49.75 \end{array}$$