

8/22 Algebra 1 - Downing
Bellwork

$$1) \begin{array}{r} 3x - 5 = 4x + 7 \\ -3x \quad -3x \\ \hline -5 = x + 7 \\ -7 \quad -7 \\ \hline -12 = x \end{array}$$

$$\begin{array}{r} -5 = x + 7 \\ -7 \quad -7 \\ \hline -12 = x \end{array}$$

$$\boxed{-12 = x}$$

$$2) \begin{array}{r} 6 - 1x = 9 \\ -6 \quad 2 \quad -6 \\ \hline -1x = 3 \\ \times 2 \\ \hline -x = 6 \\ -x \quad -1 \\ \hline x = -6 \end{array}$$

$$\begin{array}{r} 6 - 1x = 9 \\ -6 \quad 2 \quad -6 \\ \hline -1x = 3 \\ \times 2 \\ \hline -x = 6 \\ -x \quad -1 \\ \hline x = -6 \end{array}$$

$$\begin{array}{r} -x = 6 \\ -x \quad -1 \\ \hline x = -6 \end{array}$$

$$\boxed{x = -6}$$

$$3) \begin{array}{r} x + 8 = 11 \\ -8 \quad -8 \\ \hline x = 3 \end{array}$$

$$\begin{array}{r} x + 8 = 11 \\ -8 \quad -8 \\ \hline x = 3 \end{array}$$

$$\boxed{x = 25}$$

+ → sum, more

- → difference

• → times

÷ →

= → is

Application Practice Worksheet (Notes)

1. The difference of one-third of a number and 8 is 1.
What is the number?

$$\begin{array}{r} \frac{1}{3}x - 8 = 1 \\ +8 \quad +8 \\ \hline \frac{1}{3}x = 9 \end{array} \quad \text{or} \quad \frac{x}{3} - 8 = 1$$

$$\begin{array}{r} \frac{1}{3}x = 9 \\ \times 3 \\ \hline x = 27 \end{array}$$

$$\boxed{x = 27}$$

2. One more than sixteen times a number is 81. What is the number?

$$\begin{array}{r} 16x + 1 = 81 \\ -1 \quad -1 \\ \hline 16x = 80 \\ \times 16 \\ \hline x = 5 \end{array}$$

$$\begin{array}{r} 16x = 80 \\ \times 16 \\ \hline x = 5 \end{array}$$

$$\boxed{x = 5}$$

- 3) One seventeenth of a number subtracted by 17 is 42. What is the number?

$$\frac{x}{17} - 17 = 42$$

$$\frac{x}{17} = 59$$

$$x = 1003$$

- 4) Stephen pays \$35 for the sports package and can rent movies for \$5.99 each with his cable network. If Stephen paid \$70.94 last month, how many movies did he buy? $m = \#$ of movies

$$35 + 5.99m = 70.94$$

$$5.99m = 35.94$$

$$m = 6 \text{ movies}$$

- 5) Kate is saving to buy an Apple watch that costs \$350. So far, she has saved \$180 and adds \$17 to her savings each week. How many more weeks must she save to be able to buy the Apple watch? $w = \#$ weeks

$$180 + 17w = 350$$

$$17w = 170$$

$$w = 10 \text{ weeks}$$

- 6) For her cell phone plan, Vera pays \$42 a month and \$15 for each GB of data. If Vera's bill is \$162, how many GB of data did she use?

$x = \text{GB of data}$

$$42 + 15x = 162$$

$$15x = 120$$

$$x = 8 \text{ GB of data}$$

★ PC on Friday

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