

HW: pg. 230-232/2, 4-16

Warm up:

1) Of the 60 books on a shelf, 24 are nonfiction. What percent of the books are nonfiction?

~~$$\frac{x}{100} = \frac{24}{60}$$~~

$$\frac{60x}{60} = \frac{2400}{60}$$

$$x = 40$$

$$\frac{p \cdot 60}{60} = \frac{24}{60}$$

$$p = 0.4 = 40\%$$

40%

2) 43.75% of Paul's DVDs are action films. If Paul has 28 action films, how many DVDs does he own?

~~$$\frac{43.75}{100} = \frac{28}{x}$$~~

$$\frac{43.75x}{43.75} = \frac{2800}{43.75}$$

$$x = 64$$

64 DVDs

3) In a recent year, 17.7% of households watched the final episode of a popular reality TV show. There are 110.2 million television households in the United States. How many households watched the final episode?

~~$$\frac{17.7}{100} = \frac{x}{110.2}$$~~

$$\frac{100x}{100} = \frac{1950.54}{100}$$

$$x = 19.5054$$

19.5054 million households

A pair of shoes is on sale for \$51. This is ⁷⁵75% of the original price. What is the original price?

$$\frac{\%}{100} = \frac{\text{is}}{\text{of}}$$

~~$$\frac{75}{100} = \frac{51}{x}$$~~

$$\frac{75x}{75} = \frac{5100}{75}$$

$$x = 68$$

$$\text{\$ } 68$$

$$\left(\begin{array}{l} \% \text{ as a} \\ \text{decimal} \end{array} \right) (\text{of}) = (\text{is})$$

$$\frac{0.75x}{0.75} = \frac{51}{0.75}$$

$$x = 68$$

$$\text{\$ } 68$$

Lisa and Michelle scored 48% of their team's points. If their team had a total of 50 points, how many points did they score?

$$\begin{array}{l} \cancel{\frac{48}{100} = \frac{x}{50}} \\ \frac{100x = 2400}{100 \quad 100} \\ \hline x = 24 \\ \text{24 points} \end{array}$$

$$\begin{array}{l} 0.48(50) \\ \text{24 points} \end{array}$$

Showdown



38% of what number is 19?

$$\frac{38}{100} = \frac{19}{x}$$

$$38x = 1900$$
$$x = 50$$

22 is what percent of 68?

$$\frac{22}{68} = \frac{22}{68}$$

$$+ = 0.323529412$$

0.323529412

32.35%

You want to leave a 20% tip for your waiter. If your bill is \$67.90, how much tip should you leave?

$$.20(67.90) = \cancel{13.58}$$

Sales tax in New Jersey is 7%. If you buy a TV for \$1350, what is the sales tax that you must pay?

$$\begin{array}{r} \cancel{100} \times \cancel{1350} \\ \hline 100x = 9450 \\ \hline 100 \quad 100 \\ \hline x \quad \$94.50 \end{array}$$

60% of the members in the chess club are also in the computer club. If there are 35 people in the chess club, how many of them are also in the computer club?

$$\frac{60}{100} \times 35$$

$100x = 2100$
 $x = 21 \text{ People}$

Ned got 42% of the votes in a recent election. If he received 546 votes, how many people voted?

$$0.42x = 546$$

$$\frac{42}{100} = \frac{546}{x}$$

$$\frac{42x}{42} = \frac{54600}{42}$$

$$x = 1300 \text{ people voted}$$

There are 432 students in the graduating class at Memorial High School. 27 students took Advanced Art during their senior year. What percentage of the students took Advanced Art during their senior year?

$$\frac{p(432) = 27}{432} = \frac{27}{432}$$

$$p = 0.0625$$

6.25%

$$\frac{x}{100} = \frac{27}{432}$$