

100 .85 (1.20x) → total cost
- 85
★ 15% discount ★ 20% tip

$$198,000 \times .12 = 23,760$$

$$\frac{x}{198,000} = \frac{88}{100} \rightarrow$$

174,240

$$\begin{array}{r} 198,000 \\ - 23,760 \\ \hline 174,240 \end{array}$$

Name: _____

Review Questions!

Example 1: The length of a park was measured to be 510 feet long. The actual length of the park is 500 feet. What is the percent error?

$$\frac{\text{difference}}{\text{actual}} \times 100 \quad \frac{10}{500} \times 100$$

$$.02 \times 100 = 2\%$$

5. There were about 198,000 spectators at an action sports event last year. This year, the number of spectators decreased by about 12% from last year. About how many spectators were there this year?

3.

The price of a used car is \$15,800. If the sales tax is 8%, what is the final price of the car?

First, find the tax.

$$15,800 \times .08 = \$1,264$$

Second, find the final price.

$$15,800 + 1,264 = \$17,064$$

4.

Sam bought a shirt for \$60. If he had a coupon for 20% off, what is the new price of the shirt?

$$60 \times .20 = 12$$

$$\begin{array}{r} 60 \\ -12 \\ \hline \$48 \end{array}$$

5.

A bill for a meal is \$21.75. Find the total cost if the customer leaves a 15% tip.

6.

You have a summer job as a delivery person at a local grocery store. Suppose you save \$1400 of your pay and deposit into an account that earns simple interest. After 9 months the balance is \$1421. What is the annual interest rate?

$$I = prt$$

$$1421 = (1400)(r)\left(\frac{9}{12}\right)$$

$$\frac{1421}{1050} = \frac{1050r}{1050}$$

$$r = 1.35333$$

$$r = 1.4$$

$$140\%$$

7.

\$9575 was borrowed for 2 years at a cost of \$550. What was the rate of interest?

$$550 = (9575)(r)(2)$$

$$\star \frac{550}{19150} = \frac{19150r}{19150}$$

$$.0287 = r$$

$$0.287$$

$$2.87\%$$

$$3\%$$

8.

The shoe salesperson at Nordstroms work on commission. If she sells shoes that total \$850 and earns \$76.50 in commission, what % of the sales did she earn?

$$\frac{\text{part}}{\text{whole}} = \frac{\%}{100}$$

$$\frac{76.50}{850} = \frac{\%}{100}$$

$$850x = 7650$$

$$x = 9\%$$

9.) The population of a city is expected to increase by 7.5% next year. If p represents the current population, write an expression to represent the expected population next year.