

Answer Key

Percent Quiz Review

A new television costs \$785.00. 6% sales tax was added at the register. Calculate the total cost for the TV.

Step 1: Find the tax amount.

$$\frac{x}{785} = \frac{6}{100} \quad 6 \times 785 = 100x$$

$$\frac{4,710}{100} = 100x$$

\$47.10

Step 2: Add tax amount to the cost of the tv.

$$\begin{array}{r} 785.00 \\ + 47.10 \\ \hline 832.10 \end{array}$$

Total cost is \$ 832.10.

Six Flags is having a sale on admission. The original price is \$62.50. If it is on sale for 45% off, find the sales price.

Step 1: Find the discount amount.

$$\frac{x}{62.5} = \frac{45}{100} \quad 45 \times 62.5 = 100x$$

$$\frac{2812.5}{100} = \frac{100x}{100}$$

28.125
28.13

Step 2: Subtract discount amount from the admission price.

$$\begin{array}{r} 62.50 \\ - 28.13 \\ \hline 34.37 \end{array}$$

Total cost is \$ 34.37.

Carmen earns 4.5% interest on an investment of \$6000 each year. How much money will she earn after 6 years?

Step 1: Find the interest amount for one year.

$$6000 \times 4.5$$

27,000

Step 2: Multiply interest amount by number of years.

$$27,000 \times 6$$

$$\frac{162,000}{100}$$

Interest earned is \$ 1,620.

A store has sneakers worth \$160. The store adds a 30% MARKUP. What is the selling price of the sneakers?

Step 1: Find the amount of markup.

$$\frac{x}{160} = \frac{30}{100} \quad 160 \times 30 = 100x$$

$$\frac{4800}{100} = \frac{100x}{100}$$

x = 48

Step 2: Add the markup to the cost.

$$\begin{array}{r} 160 \\ + 48 \\ \hline 208 \end{array}$$

Selling Price is \$ 208.

page 3 has detailed explanation

Divide by 100

why? you're converting the % into decimal

$$\left(\frac{I}{n + e r t} = \frac{PRT}{100} \right) \leftarrow \text{Easier way}$$

A pair of boots is ticketed \$79.99, but marked 35% off. You will pay 6% sales tax on the boots. What is the total cost of the boots?

Step 1: Find the discount amount.

$$\frac{x}{79.99} = \frac{35}{100}$$

$$27.9965$$

$$\textcircled{28.00}$$

$$79.99 \times 35 = 100x$$

$$\frac{2799.65}{100} = \frac{100x}{100}$$

Step 2: Subtract discount amount from original cost.

$$\begin{array}{r} 79.99 \\ -28.00 \\ \hline \end{array}$$

$$\textcircled{51.99}$$

Step 3: Calculate tax amount on discounted price.

$$\frac{x}{51.99} = \frac{6}{100}$$

$$3.1194 = x$$

$$\textcircled{3.12}$$

Step 4: Add tax amount to discounted price.

$$\begin{array}{r} 51.99 \\ + 3.12 \\ \hline \end{array}$$

$$55.11$$

The total cost of the boots is \$ 55.11.

Mary's dinner bill came to \$48. Sales tax is 6.5%. She leaves a 15% tip after sales tax. Find the total amount Mary paid.

Step 1: Find the sales tax amount.

$$\frac{x}{48} = \frac{6.5}{100}$$

$$\textcircled{3.12}$$

$$48 \times 6.5 = 100x$$

$$\frac{312}{100} = \frac{100x}{100}$$

Step 2: Add sales tax to the cost.

$$\begin{array}{r} 48.00 \\ + 3.12 \\ \hline \end{array}$$

$$\textcircled{51.12}$$

Step 3: Calculate tip amount on new cost.

$$\frac{x}{51.12} = \frac{15}{100}$$

$$7.668$$

$$\textcircled{7.67}$$

$$51.12 \times 15 = 100x$$

$$\frac{766.8}{100} = \frac{100x}{100}$$

Step 4: Add tip amount to total.

$$\begin{array}{r} 51.12 \\ + 7.67 \\ \hline \end{array}$$

Mary paid \$ 58.79.

Simple Interest



Simple Interest
Formula

$$\text{\%} = \frac{(P \times R \times T)}{100}$$



Principal

The amount you start with

Rate

The percent (%) interest
(interest rate)

Time

How long it happens

The reason why you divide by 100 is because that's when you're turning your percent into a decimal.

Example: 63% = 0.63