Tip, Commission, and Gratuity

Key

Tip, commission, and gratuity are words to describe extra money a worker is paid. To find the commission or gratuity, set up a proportion based on the information and solve.

Ex. 1: Martin is paid a 12% commission on his shoe sales. He sold $780 worth of shoes. Find his commission.

$$\frac{12}{100} = \frac{X}{780}$$

$$X \Rightarrow \$93.60 \quad \text{commission}$$

Ex. 2: Restaurants usually charge 15% gratuity in addition to your bill for parties of eight or more people. Find the total cost for a party of ten whose bill was $286.

$$\frac{15}{100} = \frac{X}{286}$$

$$X = \$42.90 \quad \text{gratuity}$$

$$286 + 42.90 = \$328.90 \quad \text{total cost!}$$

When you go to a restaurant, you will want to find the tip without a calculator or pencil. A shortcut for estimating the tip is to first round the number. Then find 10% by moving the decimal one place to the left. Once you know what 10% is, you double it to find 20% or take half of it to find 5%. Although it is a personal decision, most people leave 15% or 20%.

Ex. 1 My family and I went out for dinner for my birthday last week. Our bill was $123. The waiter did an average job of serving us so my husband decided to tip him 15%. Show how you would find the 15% *without* using a calculator.

$$123 \rightarrow 120$$

$$120. \rightarrow 10\% \text{ is } ^\$12$$
$$\rightarrow 5\% \quad \tfrac{1}{2}(12) = ^\$6 \Big\} \Rightarrow 15\% = 12 + 6 = \underline{^\$18} \text{ tip}$$

Ex. 2 Estimate a 20% tip for a restaurant bill of $153.

$$153 \rightarrow 150$$

$$150. \rightarrow 10\% \text{ is } ^\$15$$
$$10\% \text{ is } ^\$15 \Big\} \quad 15 \times 2 = \underline{^\$30} \text{ tip}$$

Ex. 3 Using estimation, find a 15% tip for a sale of $85.50.

$$85.50 \rightarrow 90$$

$$10\% \rightarrow 9$$
$$5\% \rightarrow 4.50 \Big\} \quad \text{Leave } 9 + 4.50 = 13.50$$
$$\text{OR } 9 + 5 \rightarrow \underline{^\$14} \text{ tip}$$
$$\uparrow$$
$$\text{rounded}$$