## Dear Family,

This week your student is learning about solving problems with percents. A percent is a rate per 100, and it can be expressed with the percent symbol (\%), as a fraction, or as a decimal.

$$
25 \%=\frac{25}{100}=0.25
$$

Here are some common situations involving percents that you may recognize.

- A store advertises a $25 \%$-off sale, or markdown, of the regular prices.
- A business owner sells an item for a markup of $10 \%$ more than she bought it for.
- There is a $5 \%$ sales tax on an appliance purchase.
- A server receives a $15 \%$ tip, or gratuity, on the amount of a restaurant bill.
- A salesperson earns a $14 \%$ commission on car sales.
- A bank offers a savings account that pays a simple interest rate of $2 \%$ on the principal, or amount deposited.
Your student will be solving problems like the one below.

Rani buys a $\$ 35$ desk with a 15\%-off coupon. How much does Rani pay for the desk?

ONE WAY to find a discounted price is to find the amount of the discount and subtract it from the original price.

$$
\begin{aligned}
15 \% \text { of } 35 & =(0.15)(35) \\
& =5.25 \\
35-5.25 & =29.75
\end{aligned}
$$

ANOTHER WAY is to find the percent of the original price that Rani pays.
Receiving a $15 \%$ discount is the same as paying $85 \%$ of the original price.

$$
\begin{aligned}
85 \% \text { of } 35 & =(0.85)(35) \\
& =29.75
\end{aligned}
$$

Both ways show that Rani pays $\$ 29.75$.

## Activity Thinking About Percents Around You

$>$ Do this activity together to investigate percents in the real world.

Do you have a pet that always seems to be sleeping? Different types of animals sleep for different amounts of time. A brown bat sleeps for an average of $82.9 \%$ of a 24 -hour day in order to conserve energy when it is cold or when food is limited. That is almost 20 hours of sleep!
Giraffes sleep standing up so they can more easily defend themselves from predators. A giraffe only sleeps for an average of $7.9 \%$ of the day, or less than 2 hours!


Where else do you see percents in the world around you?

