

ANSWERS Distributive Property Word Problems

The **distributive property** is a tool to make multiplication with larger numbers easier.

To use the distributive property:
Break one factor into two addends,
multiply both addends by the other
factor, and add together both products.

Break up
the bigger
number
into two
addends

$$\begin{aligned}
 &16 \times 5 \\
 &\swarrow \\
 &(10 + 6) \times 5 \\
 &(10 \times 5) + (6 \times 5) \\
 &50 + 30 = 80
 \end{aligned}$$

$$16 \times 5 = 80$$



Directions: Solve each problem below using the distributive property. Show your work.

1. Shanna made popsicles on a hot summer day. She made 8 trays of popsicles. Each tray makes 16 popsicles. How many popsicles did she make?

$$\begin{aligned}
 &8 \times 16 \\
 &8 \times (10 + 6) \\
 &(8 \times 10) + (8 \times 6) \\
 &80 + 48 \\
 &8 \times 16 = 128
 \end{aligned}$$

2. Saijeen sold 12 cups of lemonade each hour at her lemonade stand. She was outside for a total of 4 hours. How many cups of lemonade did she sell?

$$\begin{aligned}
 &12 \times 4 \\
 &(8 + 4) \times 4 \\
 &(8 \times 4) + (4 \times 4) \\
 &32 + 16 \\
 &12 \times 4 = 48
 \end{aligned}$$

3. There are 14 crackers in each package. If the family brought 6 packages on the road trip, how many crackers did they have?

$$\begin{aligned}
 &14 \times 6 \\
 &(6 + 8) \times 6 \\
 &(6 \times 6) + (8 \times 6) \\
 &36 + 48 \\
 &14 \times 6 = 84
 \end{aligned}$$

4. Jeremy gets french fries everyday for lunch at school. If he eats 26 french fries each day, how many fries does he eat in a school week?

$$\begin{aligned}
 &26 \times 5 \\
 &(20 + 6) \times 5 \\
 &(20 \times 5) + (6 \times 5) \\
 &100 + 30 \\
 &26 \times 5 = 130
 \end{aligned}$$

5. The soccer league is holding 5 camps this summer. There will be 15 players in each camp. How many players will attend soccer camp this summer?

$$\begin{aligned}
 &15 \times 5 \\
 &5 \times (10 + 5) \\
 &(5 \times 10) + (5 \times 5) \\
 &50 + 25 \\
 &5 \times 15 = 75
 \end{aligned}$$

6. The chef needed eggs for the new meal on the menu. Each egg carton has 18 eggs. She ordered 9 cartons of eggs. How many eggs did the chef need for her special meal?

$$\begin{aligned}
 &18 \times 9 \\
 &(10 + 8) \times 9 \\
 &(10 \times 9) + (8 \times 9) \\
 &90 + 72 \\
 &18 \times 9 = 162
 \end{aligned}$$