

The Distributive Property in Arithmetic

1 Fill in the blanks to make this equation true.

$$5 \times (8 + 3) = \boxed{5} \times 8 + \boxed{5} \times 3$$

2 Fill in the blanks to make this equation true.

$$6 \times (12 - 9) = 6 \times \boxed{12} - 6 \times \boxed{9}$$

3 Use the Distributive Property to simplify this expression. (Show your work!)

$$\begin{aligned} &3 \times (8 + 10) \\ &3 \times 8 + 3 \times 10 \\ &24 + 30 \\ &\quad \textcircled{54} \end{aligned}$$

4 Use the Distributive Property to simplify this expression. (Show your work!)

$$\begin{aligned} &7 \times (11 - 5) \\ &7 \times 11 - 7 \times 5 \\ &77 - 35 \\ &\quad \textcircled{42} \end{aligned}$$

5 Use the Distributive Property to simplify this expression. (Show your work!)

$$\begin{aligned} &4 \times (3 + 9 - 2) \\ &4 \times 3 + 4 \times 9 - 4 \times 2 \\ &12 + 36 - 8 \\ &48 - 8 \\ &\quad \textcircled{40} \end{aligned}$$

6 Use the Distributive Property to rearrange this multiplication problem so it is easier to do mentally. Then simplify it.

$$\begin{aligned} &5 \times 29 \\ &5 \times (20 + 9) \\ &5 \times 20 + 5 \times 9 \\ &100 + 45 \\ &\quad \textcircled{145} \end{aligned}$$

7 Use the Distributive Property to rearrange this multiplication problem so it is easier to do mentally. Then simplify it.

$$\begin{aligned} &8 \times 82 \\ &8 \times (80 + 2) \\ &8 \times 80 + 8 \times 2 \\ &640 + 16 \\ &\quad \textcircled{656} \end{aligned}$$

8 Use the Distributive Property to rearrange this multiplication problem so it is easier to do mentally. Then simplify it.

$$\begin{aligned} &3 \times 158 \\ &3 \times (100 + 50 + 8) \\ &3 \times 100 + 3 \times 50 + 3 \times 8 \\ &300 + 150 + 24 \\ &\quad \textcircled{474} \end{aligned}$$