

Evaluate the Expressions using Distributive Property

1. Determine what is missing on the expression below using distributive property.

$$A \times (B - C) = A \times \underline{\quad} - \underline{\quad} \times C$$

2. Find n to make the equation correct.

- a. $57 \times 74 = 57 \times 70 + 57 \times n$
- b. $36 \times 110 = n \times 100 + 36 \times 10$
- c. $17 \times 0.8 = 17 \times 0.4 + 17 \times n$
- d. $45 \times 0.2 = n \times 0.1 + n + 0.1$
- e. $5 \times 80 = 5 \times n + 5 \times 80$
- f. $14 \times n = 14 \times 20 + 14 \times 7$

3. Find the value of the expression using distributive property.

$$15 \times (7 + n) \quad \text{if } n = 3$$

$$\begin{aligned} &= 15 \times 7 + 15 \times \underline{\quad} \\ &= \underline{\quad} + \underline{\quad} \\ &= \underline{\quad} \end{aligned}$$

$$7 \times (2 + n) \quad \text{if } n = 5$$

$$\begin{aligned} &= 7 \times 2 + 7 \times \underline{\quad} \\ &= \underline{\quad} + \underline{\quad} \\ &= \underline{\quad} \end{aligned}$$

$$3.2 \times (8 + n) \quad \text{if } n = 2$$

$$\begin{aligned} &= 3.2 \times 8 + 3.2 \times \underline{\quad} \\ &= \underline{\quad} + \underline{\quad} \\ &= \underline{\quad} \end{aligned}$$

$$10 \times (50 + n) \quad \text{if } n = 9$$

$$\begin{aligned} &= 10 \times 50 + 10 \times \underline{\quad} \\ &= \underline{\quad} + \underline{\quad} \\ &= \underline{\quad} \end{aligned}$$

$$11 \times (4 + n) \quad \text{if } n = 6$$

$$\begin{aligned} &= 11 \times 4 + 11 \times \underline{\quad} \\ &= \underline{\quad} + \underline{\quad} \\ &= \underline{\quad} \end{aligned}$$

$$12 \times (n + 6) \quad \text{if } n = 7$$

$$\begin{aligned} &= 12 \times \underline{\quad} + 12 \times 6 \\ &= \underline{\quad} + \underline{\quad} \\ &= \underline{\quad} \end{aligned}$$

4. Find the perimeter (P) of the rectangle shown below using distributive property.

a



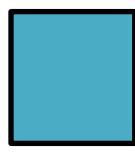
Solution:

$$\begin{aligned} P &= 2 \times (9 + a) \quad \text{if } a = 21 \\ &= 2 \times 9 + 2 \times \underline{\quad} \\ &= \underline{\quad} + \underline{\quad} \\ &= \underline{\quad} \\ P &= \underline{\quad} \end{aligned}$$

5. Find the sum of the area of the two squares shown below using distributive property.



6 cm



3 cm

Solution

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Answer Key

1. $A \times (B - C) = A \times C - B \times C$

2.

- a. 4
- b. 36
- c. 0.4
- d. 45
- e. 0
- f. 27

$$\begin{aligned} 15 \times (7 + n) &\quad \text{if } n = 3 \\ &= 15 \times 7 + 15 \times 3 \\ &= 105 + 45 \\ &= 150 \end{aligned}$$

$$\begin{aligned} 7 \times (2 + n) &\quad \text{if } n = 5 \\ &= 7 \times 2 + 7 \times 5 \\ &= 14 + 35 \\ &= 49 \end{aligned}$$

$$\begin{aligned} 3.2 \times (8 + n) &\quad \text{if } n = 2 \\ &= 3.2 \times 8 + 3.2 \times 2 \\ &= 25.6 + 6.4 \\ &= 32 \end{aligned}$$

3.

$$\begin{aligned} 10 \times (50 + n) &\quad \text{if } n = 9 \\ &= 10 \times 50 + 10 \times 9 \\ &= 500 + 90 \\ &= 590 \end{aligned}$$

$$\begin{aligned} 11 \times (4 + n) &\quad \text{if } n = 6 \\ &= 11 \times 4 + 11 \times 6 \\ &= 44 + 66 \\ &= 110 \end{aligned}$$

$$\begin{aligned} 12 \times (n + 6) &\quad \text{if } n = 7 \\ &= 12 \times 7 + 12 \times 6 \\ &= 84 + 72 \\ &= 156 \end{aligned}$$

4. $P = 60$

5. 45 sq. cm