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Distributive Property

The **distributive property** says you can add numbers and multiply the sum. Or you can multiply each number and add the products. The answer is the same.

Read this problem. Answer each question.

Kirsten will buy 3 of each type T-shirt. She wants to know how much that will cost in all.

- 1 Write an addition sentence to show the cost of a picture T-shirt and a solid T-shirt.

- 2 Add this sum 3 times to find the total: _____ + _____ + _____ = _____

- 3 Complete this multiplication expression used to find the total cost of 3 of each type T-shirt: $3 \times (\text{_____} + \text{_____})$

- 4 Write a multiplication sentence to show the cost of 3 picture T-shirts. _____

- 5 Write a multiplication sentence to show the cost of 3 solid T-shirts. _____

- 6 Complete this multiplication expression used to find the total cost of 3 of each type T-shirt: $(3 \times \text{_____}) + (3 \times \text{_____})$

- 7 Do the multiplication expressions in questions 3 and 6 have the same value? Explain.

Picture T-shirts



\$10 each

Solid T-shirts



\$8 each

INDEPENDENT PRACTICE

Write the missing number in each number sentence.

8 $28 = 20 + \text{_____}$ 9 $41 = \text{_____} + 1$ 10 $6 \times 58 = 6 \times (\text{_____} + 8)$

11 $2 \times (3 + 1) = 2 \times 3 + 2 \times \text{_____}$ 12 $7 \times (10 + 4) = 7 \times 10 + \text{_____} \times 4$

13 $5 \times (60 + 7) = 5 \times 60 + \text{_____} \times 7$ 14 $9 \times (80 + 8) = 9 \times \text{_____} + 9 \times 8$

Write the missing numbers in each number sentence.

15 $6 \times 16 = 6 \times (10 + \underline{\quad})$

16 $4 \times 56 = 4 \times (\underline{\quad} + 6)$

17 $3 \times 33 = 3 \times (\underline{\quad} + \underline{\quad})$

18 $8 \times 42 = 8 \times (\underline{\quad} + \underline{\quad})$

19 $2 \times (10 + 8) = 2 \times 10 + 2 \times \underline{\quad}$

20 $5 \times (40 + 5) = 5 \times \underline{\quad} + 5 \times \underline{\quad}$

21 $7 \times (90 + 4) = 7 \times 90 + \underline{\quad} \times \underline{\quad}$

22 $4 \times (10 + 1) = \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad}$

23 $6 \times 13 = \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad}$

24 $9 \times 73 = \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad}$

Solve each problem.

25 Pizzas cost \$10 each and salads cost \$4 each. Dan buys 6 of each for a party. Complete the number sentences below to find the total dollar amount Dan spent for the pizzas and salads.

$6 \times (10 + 4) = \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad}$

$6 \times \underline{\quad} = \underline{\quad} + \underline{\quad}$

$6 \times \underline{\quad} = \underline{\quad}$

26 In a video game, Laura scored 75 points on each level. She played 8 levels. Write two different number sentences that can be used to find the number of points Laura scored in all.

27 Look at this number sentence: $7 \times 70 + 7 \times 1 = \underline{\quad} \times \underline{\quad}$. What are the missing numbers? Explain how you know.

28 Do the expressions 8×39 and $8 \times 30 + 8 \times 9$ have the same value? Why?
