

Name _____

Multiplying Three Numbers

Find $5 \times 2 \times 3$.

Example 1

You can change the grouping of factors, and the product will be the same.

Group the first 2 numbers together.

$$(5 \times 2) \times 3$$

$$= 10 \times 3$$

$$= 30$$

Group the second 2 numbers together.

$$5 \times (2 \times 3)$$

$$= 5 \times 6$$

$$= 30$$

The answer is 30 in both cases.

Example 2

Solve without using grouping symbols.

If there are no grouping symbols, you can choose any two factors to multiply first.

$$2 \times 3 \times 5$$

Try 2×5 first.

$$10 \times 3 = 30$$

1. $(1 \times 3) \times 6 = \underline{\quad}$

$1 \times (3 \times 6) = \underline{\quad}$

2. $(5 \times 2) \times 4 = \underline{\quad}$

$5 \times (2 \times 4) = \underline{\quad}$

3. $(2 \times 4) \times 1 = \underline{\quad}$

$2 \times (4 \times 1) = \underline{\quad}$

4. $(2 \times 2) \times 5 = \underline{\quad}$

$2 \times (2 \times 5) = \underline{\quad}$

5. $2 \times 4 \times 3 = \underline{\quad}$

6. $7 \times 1 \times 3 = \underline{\quad}$

7. $3 \times 3 \times 2 = \underline{\quad}$

8. $3 \times 2 \times 6 = \underline{\quad}$

9. $(4 \times 2) \times 2 = \underline{\quad}$

10. $3 \times (0 \times 7) = \underline{\quad}$

Name _____

Multiplying Three Numbers (continued)

11. $1 \times 7 \times 9 = \underline{\hspace{2cm}}$ **12.** $8 \times (2 \times 3) = \underline{\hspace{2cm}}$ **13.** $(2 \times 5) \times 6 = \underline{\hspace{2cm}}$

14. $9 \times 0 \times 3 = \underline{\hspace{2cm}}$ **15.** $4 \times 5 \times 1 = \underline{\hspace{2cm}}$ **16.** $(3 \times 6) \times 1 = \underline{\hspace{2cm}}$

17. Reasoning When multiplying 3 numbers, if one of the factors is zero, what will the answer be? _____

18. A classroom of students are getting ready to take a test. There are 5 rows of desks in the room and 4 students are in each row. Ten desks in the room are empty. Each student is required to have 2 pencils. How many pencils are needed? _____

Test Prep Choose the correct letter for each answer.

19. Find $5 \times 3 \times 3$.

- A** 30 **B** 45 **C** 20 **D** 15

20. Gloves are on sale for \$2 per pair. A family of four buys 2 pairs each. How much is the total cost?

- A** \$16 **B** \$8 **C** \$6 **D** \$4