

# REVIEW: Commutative and Associative Properties

Name \_\_\_\_\_

## Key Concept and Vocabulary

Commutative Property of Addition

$$1 + 3 = 3 + 1$$

$$2 + (3 + 5) = (2 + 3) + 5$$

Associative Property of Addition

Commutative Property of Multiplication

$$2 \times 5 = 5 \times 2$$

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

Associative Property of Multiplication

Properties



## Skill Examples

- $3 + 6 = 6 + 3 = 9$   
Commutative Property of Addition
- $15 + (5 + 3) = (15 + 5) + 3 = 23$   
Associative Property of Addition
- $4 \times 6 = 6 \times 4 = 24$   
Commutative Property of Multiplication
- $2 \times (3 \times 5) = (2 \times 3) \times 5 = 30$   
Associative Property of Multiplication

## Application Example

- On a field trip, there are 62 students, 4 teachers, and 8 volunteers. Use a property to find how many people are on the field trip in all.

$$\begin{aligned} 62 + 4 + 8 &= 62 + 8 + 4 \\ &= 70 + 4 \\ &= 74 \end{aligned}$$

Commutative Property of Addition

There are 74 people on the field trip.



## PRACTICE MAKES PURR-FECT®

Check your answers at [BigIdeasMath.com](http://BigIdeasMath.com).

Identify the property. The find the sum or product.

- $11 + 36 = 36 + 11$   
Commutative Property of Addition; 47
- $10 \times 4 = 4 \times 10$   
Commutative Property of Multiplication; 40
- $5 \times (4 \times 2) = (5 \times 4) \times 2$  **Associative**  
Property of Multiplication; 40
- $2 + (3 + 5) = (2 + 3) + 5$   
Associative Property of Addition; 10
- $2 + 3 + 4 = 2 + 4 + 3$   
Commutative Property of Addition; 9
- $5 \times 2 \times 3 = 2 \times 5 \times 3$   
Commutative Property of Multiplication; 30

Show how you can use properties to find the sum or product.

- $15 + 13 + 35 + 27 = \frac{(15 + 35) + (13 + 27)}{= 50 + 40} = 90$
- $9 \times 5 \times 3 \times 2 = \frac{(9 \times 3) \times (5 \times 2)}{= 27 \times 10} = 270$

- COMMUTATIVITY** Describe two real-life activities that are *not* commutative. In other words, you get different results if you switch the order in which the activities are performed.  
Sample answer: Put on a shirt and jacket; Fill and seal an envelope.