

Name: \_\_\_\_\_

# Addition Properties

## Commutative Property of Addition

Addends can be added in any order.

example:  $4 + 8 + 3 = 15$   
 $8 + 3 + 4 = 15$

## Associative Property of Addition

Addends can be grouped in different ways and the sum will not change. Addends are grouped with parenthesis. (You add the part in parenthesis first.)

example:  $(9 + 2) + 3 = 14$   
 $9 + (2 + 3) = 14$

1. Use the commutative property of addition to write three different problems with the addends 6, 7, and 8.

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

2. Explain how  $(13 + 10) + 5$  is solved differently from  $13 + (10 + 5)$ .

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3. Do you think there is a commutative property of subtraction? Why or why not?

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# ANSWER KEY

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1. Use the commutative property of addition to write three different problems with the addends 6, 7, and 8.

a.  $6 + 7 + 8 = 21$

Also accept:  $8 + 7 + 6 = 21$

b.  $7 + 8 + 6 = 21$

$7 + 6 + 8 = 21$

c.  $6 + 8 + 7 = 21$

$8 + 6 + 7 = 21$

2. Explain how  $(13 + 10) + 5$  is solved differently from  $13 + (10 + 5)$ .

In  $(13 + 10) + 5$ , you add  $13 + 10$  first, then add 5.

In  $13 + (10 + 5)$ , you add the  $10 + 5$  first, then add 13.

3. Do you think there is a commutative property of subtraction? Why or why not?

There is no commutative property of subtraction. In a subtraction number you must subtract the smaller number from the bigger number.

Also accept: You get a different answer if you reverse the numbers in a subtraction problem.