

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



NVACS: Operations and Algebraic Thinking

3.OA.A.5 Apply properties of operations as strategies to multiply and divide: commutative, associative, and distributive properties.

Practice for Third Grade

Connect the boxes that are equal by drawing a line.

$$4 \times 6$$

$$(7 \times 2) + (7 \times 2)$$

$$6 \times 5$$

$$3 \times 12$$

$$12 \times 3$$

$$6 \times 4$$

$$7 \times 4$$

$$(6 \times 2) + (6 \times 3)$$

In each box, write the missing number that makes the sentence true.

$3 \times 5 = (3 \times 3) + (3 \times \underline{\quad})$	$(7 \times \underline{\quad}) + (7 \times 2) = 7 \times 6$
$35 = 7 \times (3 + \underline{\quad})$	$4 \times (8 + 2) = 4 \times \underline{\quad}$

Terrence wrote the following sentence. Is it true? Why or why not?

$$16 = (4 \times 1) + (12 \times 0)$$

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Practice for Third Grade

Cassidy knows  $4 \times 5$  but she does not know  $4 \times 7$ . How could she use her understanding of  $4 \times 5$  to help her find the answer to  $4 \times 7$ ?

Rowan knows that  $6 \times 7 = 42$  but he doesn't know the product for  $6 \times 9$ . How can he use  $6 \times 7$  to help him find the product for  $6 \times 9$ ?

Caitlyn and Quin decided to use what they knew about  $5 \times 7$  to help them answer  $5 \times 12$ . How did they use their understanding of  $5 \times 7$  to help them answer  $5 \times 12$ ?