

## Unit 2 Assessment: Multiplication – Part II Study Guide

*There can be many methods to get a correct answer. These are some examples.*

For the following, fill in the blank to make the equation true then identify the property it defines.

Distributive Property	Commutative Property	Zero Property of Multiplication
Associative Property	Identity Property of Multiplication	

- 1.)  $1 \times \underline{11} = 11$      Identity Property of Multiplication
- 2.)  $105 \times 0 = \underline{0}$      Zero Property of Multiplication
- 3.)  $\underline{296} \times 1,819 = 1,819 \times 296$      Commutative Property
- 4.)  $(17 \times 32) \times 12 = 17 \times (\underline{32} \times 12)$      Associative Property
- 5.)  $17 \times 154 = (10 \times 100) + (10 \times 50) + (10 \times 4) + (7 \times \underline{100}) + (7 \times 50) + (7 \times 4)$      Distributive Property

For the following, find the product. Show all work. Double check your answers.

- 6)  $98 \times 9 = \underline{882}$                       7)  $103 \times 7 = \underline{721}$                       8)  $31 \times 4 = \underline{124}$

$\begin{array}{r} 7 \\ 98 \\ \times 9 \\ \hline 882 \end{array}$	$9 \times 8 = 72$ $9 \times 9 = 81 + 7 = 88$	$\begin{array}{r} 2 \\ 103 \\ \times 7 \\ \hline 721 \end{array}$	$7 \times 3 = 21$ $7 \times 0 = 0 + 2 = 2$ $7 \times 1 = 7$	$\begin{array}{r} 31 \\ \times 4 \\ \hline 124 \end{array}$	$4 \times 1 = 4$ $4 \times 3 = 12$
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|---|---|--|--|
| <p>9) <math>\begin{array}{r} 70 \\ \times 46 \\ \hline 3,220 \end{array}</math></p> | <p>10) <math>\begin{array}{r} 380 \\ \times 12 \\ \hline 4,560 \end{array}</math></p> | <p>11) <math>\begin{array}{r} 24 \\ \times 87 \\ \hline 2,088 \end{array}</math></p> | <p>12) <math>\begin{array}{r} 14 \\ \times 87 \\ \hline 1,218 \end{array}</math></p> |
|---|---|--|--|

For the following, estimate the product.

13)  $72 \times 8 =$  \_\_\_\_\_

$72 \rightarrow 70$

$70 \times 8 = 560$

14)  $\$ 194 \times 59 =$  \_\_\_\_\_

$\$194 \rightarrow \$200$

$59 \rightarrow 60$

$\$200 \times 60 = \$12,000$

For the following problems, write an equation using variables to represent each situation, and then solve. Show all work!

15) Trey's new bike cost \$2010 dollars. He makes a \$125 deposit then makes 7 payments of \$155 each. Will he have paid for the bike? Show work

Answers can vary this is one way

$\$155 \times 7 = \$1,085$

$\$2010 = \$125 + (\$155 \times 7)$

T = total cost of bike

D = deposit

P = payments

$T = D + (P \times 7)$

$\$125 + \$1085 = \$1,210$

$\begin{array}{r} 155 \\ \times 7 \\ \hline 1085 \end{array}$	$7 \times 5 = 35$ $7 \times 5 = 35 + 3 = 38$ $7 \times 1 = 7 + 3 = 10$
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No, Trey would have only paid \$1210 and the bike cost \$2010. He needs \$2010 - 1210 or \$800 more dollars.

16) For two days straight, Molly made 18 batches of muffins for the bake sale. Each batch makes 26 muffins. Her dog, Mitzi ate a dozen of them. How many muffins did Molly have left for the sale?

Methods can vary. This is one way.

$(18 \times 26) \times 2 = 936$

$936 - 12 = 924$

924 muffins

17) Yeseo bought 21 shirts for \$13 each for her soccer team. She also bought 23 balls for \$17 each. **About** how much did she spend on the **shirts**?

Answers can vary this is one way

$21 \times \$13 =$  spent on soccer shirts  
 $S =$  number of soccer shirts bought  
 $C =$  cost on one shirt

$(S \times C) =$  Money spent on Soccer shirts

ABOUT...

$21 \rightarrow 20$   
 $\$13 \rightarrow \$10$

about  $20 \times \$10 = \$200$

Solve the following problems.

18)  $21,960 + 299 =$  22,259

21)  $72 \div 9 =$  8

20)  $387 - 299 =$  88

22)  $36 \div 9 =$  4

23) Use  $<$ ,  $>$ , or  $=$   $114 \times 5$   $>$   $115 \times 4$  (show your work)

24) List the first five multiples of 7. 7, 14, 21, 28, 35

For the following, fill in the blank with the correct number. State the property used.

25)  $116 \times 33 =$  33  $\times 116$  Commutative Property

26)  $(159 \times 27) \times 76 = 159 \times$  (27  $\times 76)$  Associative Property

27)  $296 \times 15 = (200 \times 15) +$  (90  $\times 15) + (6 \times 15)$  Distributive Property

28)  $8 \times 6 =$  48

29)  $8 \times 600 =$  4,800

30)  $800 \times 60 =$  48,000

31) Write the following number in standard form.

- 5 hundreds
- 15 ones
- 6 ten thousands
- 1 millions
- 5 hundred thousands

$$\begin{array}{lcl}
 5 \text{ hundreds} = & 5 \times 100 = & 500 \\
 15 \text{ ones} = & 15 \times 1 = & 15 \\
 6 \text{ ten thousands} = & 6 \times 10,000 = & 60,000 \\
 1 \text{ millions} = & 1 \times 1,000,000 = & 1,000,000 \\
 5 \text{ hundred thousand} = & 5 \times 100,000 = & 500,000
 \end{array}$$

**1,560,515**

35) Make an area model to show  $321 \times 6$ , and then solve.



$$1,800 + 120 + 6 = 1,926$$

**12**

32) Use the Base 10 Grid Paper to draw a model for the multiplication problem. Then, use the model to find the answer.

$$12 \times 21 = \mathbf{252}$$

**21**

