

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Fill in the blanks using your knowledge of place value units and basic facts.

a.  $43 \times 30$

Think: 43 ones  $\times$  3 tens = \_\_\_\_\_ tens

$43 \times 30 =$  \_\_\_\_\_

b.  $430 \times 30$

Think: 43 tens  $\times$  3 tens = \_\_\_\_\_ hundreds

$430 \times 30 =$  \_\_\_\_\_

c.  $830 \times 20$

Think: 83 tens  $\times$  2 tens = 166 \_\_\_\_\_

$830 \times 20 =$  \_\_\_\_\_

d.  $4,400 \times 400$

\_\_\_\_\_ hundreds  $\times$  \_\_\_\_\_ hundreds = 176 \_\_\_\_\_

$4,400 \times 400 =$  \_\_\_\_\_

e.  $80 \times 5,000$

\_\_\_\_\_ tens  $\times$  \_\_\_\_\_ thousands = 40 \_\_\_\_\_

$80 \times 5,000 =$  \_\_\_\_\_

2. Determine if these equations are true or false. Defend your answer using your knowledge of place value and the commutative, associative, and/or distributive properties.

a. 35 hundreds = 5 tens  $\times$  7 tens

b.  $770 \times 6 = 77 \times 6 \times 100$

c. 50 tens  $\times$  4 hundreds = 40 tens  $\times$  5 hundreds

d.  $24 \times 10 \times 90 = 90 \times 2,400$

3. Find the products. Show your thinking. The first row gives some ideas for showing your thinking.

a.	$5 \times 5$ $= 25$	$5 \times 50$ $= 25 \times 10$ $= 250$	$50 \times 50$ $= (5 \times 10) \times (5 \times 10)$ $= (5 \times 5) \times 100$ $= 2,500$	$50 \times 500$ $= (5 \times 5) \times (10 \times 100)$ $= 25,000$
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b.	$80 \times 5$	$80 \times 50$	$800 \times 500$	$8,000 \times 50$
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c.	$637 \times 3$	$6,370 \times 30$	$6,370 \times 300$	$63,700 \times 300$
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4. A concrete stepping-stone measures 20 square inches. What is the area of 30 such stones?

5. A number is 42,300 when multiplied by 10. Find the product of this number and 500.

## Answer Key

1.
  - a. 129; 1,290
  - b. 129; 12,900
  - c. Hundreds; 16,600
  - d. 44; 4; ten thousands; 1,760,000
  - e. 8; 5; ten thousands; 400,000
2.
  - a. True; answers will vary.
  - b. False; answers will vary.
  - c. True; answers will vary.
  - d. False; answers will vary.
3.
  - a. Answers provided
  - b. 400; 4,000; 400,000; 400,000
  - c. 1,911; 191,100; 1,911,000; 19,110,000
4. 600 in<sup>2</sup>
5. 2,115,000