

Name _____ Date _____

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

a. 43×30

Think: 43 ones \times 3 tens = _____ tens

$43 \times 30 =$ _____

b. 430×30

Think: 43 tens \times 3 tens = _____ hundreds

$430 \times 30 =$ _____

c. 830×20

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

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

a. 5×5
= 25

$$\begin{aligned} 5 \times 50 \\ = 25 \times 10 \\ = 250 \end{aligned}$$

$$\begin{aligned} 50 \times 50 \\ = (5 \times 10) \times (5 \times 10) \\ = (5 \times 5) \times 100 \\ = 2,500 \end{aligned}$$

$$\begin{aligned} 50 \times 500 \\ = (5 \times 5) \times (10 \times 100) \\ = 25,000 \end{aligned}$$

b. 80×5

80×50

800×500

$8,000 \times 50$

c. 637×3

$6,370 \times 30$

$6,370 \times 300$

$63,700 \times 300$

4. A concrete stepping stone measures 20 inches square. What is the area of 30 such tiles?

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