Name_____ Date_____

1.4 The Distributive Property

For use with Activity 1.4

Essential Question How do you multiply two 2-digit numbers using mental math?

1 ACTIVITY: Finding Products Involving Multiples of 10

Working with a partner, take turns using mental math to find the product.

Read the expression to your partner. Then ask your partner to write the answer. Switch roles and repeat until you have each read four expressions.

a. 10×20 **b.** 10×30 **c.** 10×13 **d.** 24×10

e. 20×25 **f.** 30×12 **g.** 13×40 **h.** 30×70

In Activity 1, you used mental math to find simple products. You can use the *Distributive Property* and mental math to find more complicated products.

2 ACTIVITY: Using Mental Math

Work with a partner. Use the Distributive Property and mental math to find the product.

a. 6×23

b. 4×17

c. 8×26

d. 7×33

e. 9×47

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1.4 The Distributive Property (continued)

3 ACTIVITY: Two Ways to Multiply

Work with a partner. Find the product two different ways. Compare the two methods.

a. 63×28

Method 1

$$\begin{array}{r} 63 \\ \times 28 \\ \hline \end{array}$$

Method 2

$$\begin{array}{r} 63 \\ \times 28 \\ \hline \end{array}$$

b. 32×45

c. 37×61

d. 28×57

e. 17×43

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1.4 The Distributive Property (continued)

4 ACTIVITY: Using Mental Math

Work with a partner. Use the Distributive Property and mental math to find the product.

a. 60×49

b. 20×19

c. 40×29

d. 25×39

e. 15×47

What Is Your Answer?

5. IN YOUR OWN WORDS How can you multiply two 2-digit numbers using mental math? Use an example in your answer.

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1.4 Practice

For use after Lesson 1.4

Use the Distributive Property and mental math to find the product.

1. 4×31

2. 7×49

3. 13×102

4. $6(19)$

5. $23(42)$

6. $16(38)$

Use the Distributive Property to simplify the expression.

7. $8(5 + w)$

8. $11(9 + d)$

9. $15(p - 4)$

10. $4(21 - n)$

11. $20(y + 10)$

12. $9(12 - k)$

13. A practice field is 75 yards long and 29 yards wide. Use the Distributive Property and mental math to find the area of the practice field.

14. You have a rectangular fort that is 7 feet long and 6 feet wide. You decide to add x feet to the length of the fort.

a. Find the area of the fort before the addition.

b. Use the Distributive Property to write and simplify an expression for the area of the fort with the addition.

c. You have 90 square feet of space available for your fort. What is the maximum value of x feet that you can add to the length?

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