

# Decimal Product Power

*Multiply decimals using place value and whole-number facts.*

**GRADE 5 • TEKS 5.3.E**

**5.3.E** "solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers;"

NAME \_\_\_\_\_

DATE \_\_\_\_\_

**PLACE VALUE FIRST**

Multiply the digits as if they were whole numbers. Then count the total decimal digits in both factors and place the decimal point in the product. You can also use known facts, such as  $6 \times 7$ , to check your work.

**WORKED EXAMPLE**

$$0.6 \times 0.7$$

1. Multiply as whole numbers:  $6 \times 7 = 42$ .
2. There are 2 decimal digits total, 1 in each factor.
3. Place the decimal point 2 places from the right: 0.42.

**Answer: 0.42****PRACTICE** 6 problems

**1**  $0.4 \times 0.3 =$

**ANSWER** \_\_\_\_\_

**2**  $1.2 \times 0.5 =$

**ANSWER** \_\_\_\_\_

**3**  $0.25 \times 0.4 =$

**ANSWER** \_\_\_\_\_

**4**  $2.3 \times 0.2 =$

**ANSWER** \_\_\_\_\_

**5**  $0.15 \times 0.6 =$

**ANSWER** \_\_\_\_\_

**6**  $0.12 \times 0.5 =$

**ANSWER** \_\_\_\_\_

## APPLY IT Show your work

- 1** A video game store sells collectible cards for \$3.75 per pack. Jalen buys 4 packs. How much does he spend?

WORK SPACE

ANSWER \_\_\_\_\_

- 2** A bike ride is 2.4 miles long. Mei rides the route 1.5 times by riding the whole route and then half of it. How many miles does she ride?

WORK SPACE

ANSWER \_\_\_\_\_

## CHALLENGE One step up

A craft club buys 3.25 yards of ribbon at \$1.20 per yard. What is the total cost? Show how you place the decimal point.

WORK SPACE AND ANSWER

## PART 1 • PRACTICE

| # | PROBLEM             | ANSWER      |
|---|---------------------|-------------|
| 1 | $0.4 \times 0.3 =$  | <b>0.12</b> |
| 2 | $1.2 \times 0.5 =$  | <b>0.6</b>  |
| 3 | $0.25 \times 0.4 =$ | <b>0.1</b>  |
| 4 | $2.3 \times 0.2 =$  | <b>0.46</b> |
| 5 | $0.15 \times 0.6 =$ | <b>0.09</b> |
| 6 | $0.12 \times 0.5 =$ | <b>0.06</b> |

## PART 2 • APPLY IT

1. **\$15.00** Multiply  $3.75 \times 4 = 15.00$ . Jalen spends \$15.00.
2. **3.6 miles** Multiply  $2.4 \times 1.5 = 3.6$ . Mei rides 3.6 miles.

## CHALLENGE

**\$3.90**

Accept equivalent decimal forms, such as 0.6 for 0.60 and \$15 for \$15.00. For the challenge, students should show  $325 \times 120 = 39,000$  and place four decimal digits to get 3.9000, or use another correct place-value strategy.