

Decimal Product Power

Use place value to multiply decimals accurately.

GRADE 5 • TEKS 5.3

5.3 "Number and operations. The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy..."

NAME _____

DATE _____

PLACE VALUE PRODUCT

Estimate first so you can check whether your product makes sense. Multiply the factors as whole numbers, then count the total decimal places in both factors and place the decimal point in the product.

WORKED EXAMPLE

$$3.4 \times 1.2$$

1. Estimate: 3×1 is about 3.
2. Multiply whole numbers: $34 \times 12 = 408$.
3. There are 2 decimal places total, so write 4.08.

Answer: 4.08**PRACTICE** 6 problems

1 2.5×4

ANSWER _____

2 0.7×0.8

ANSWER _____

3 6.3×1.5

ANSWER _____

4 12.4×0.3

ANSWER _____

5 $\$1.25 \times 6$

ANSWER _____

6 4.08×2.5

ANSWER _____

APPLY IT Show your work

- 1** Jordan buys 8 digital game tokens. Each token costs \$2.75. How much will Jordan pay?

WORK SPACE

ANSWER _____

- 2** An art club makes 12 friendship bracelets. Each bracelet uses 0.35 meter of string. How many meters of string do the bracelets use altogether?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A rectangular mural is 4.8 meters long and 2.35 meters wide. What is its area? Explain how you know where to place the decimal point.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	2.5×4	10
2	0.7×0.8	0.56
3	6.3×1.5	9.45
4	12.4×0.3	3.72
5	$\$1.25 \times 6$	\$7.50
6	4.08×2.5	10.2

PART 2 • APPLY IT

1. **\$22.00** Multiply 2.75×8 . The product is 22.00, so Jordan pays \$22.00.
2. **4.2 meters** Multiply 0.35×12 . The product is 4.20, which is 4.2 meters.

CHALLENGE

11.28 square meters. Since $48 \times 235 = 11280$ and the factors have 3 decimal places total, the product is 11.280, or 11.28.

Accept equivalent decimal forms, such as 4.20 or 4.2. For money, accept \$22 or \$22.00, but students should include a dollar sign.