LESSON MAKER PRO

Decimal Shift Quest

Multiply and divide by tenths and hundredths.

GRADE 5 · MA.5.NSO.2.5

MA.5.NSO.2.5 "Multiply and divide a multi-digit number with decimals to the tenths by one-tenth and one-hundredth with procedural reliability."

NAME _____ DATE _____

SHIFT THE DECIMAL

When you multiply by 0.1 or 0.01, move the decimal left 1 or 2 places. When you divide by 0.1 or 0.01, move the decimal right 1 or 2 places. Write zeros when needed to hold empty places.

WORKED EXAMPLE

47.3 ÷ 0.01

1. Dividing by 0.01 means move the decimal 2 places right.
2. 47.3 becomes 4,730.
3. Add a comma for the thousands place.

Answer: 4,730

PRACTICE 6 problems

1 62.8 × 0.1 = ___

ANSWER _____

2 15.4 × 0.01 = ___

ANSWER _____

3 93.7 ÷ 0.1 = ___

ANSWER _____

4 18.6 ÷ 0.01 = ___

ANSWER _____

5 304.5 × 0.1 = ___

ANSWER _____

6 70.2 ÷ 0.01 = ___

ANSWER _____

APPLY IT Show your work

1 A game designer shrinks a 56.8-centimeter character image to 0.1 of its original width. What is the new width?

WORK SPACE

ANSWER _____

2 A running app records 27.6 kilometers in sections of 0.1 kilometer. How many sections does the app record?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A 68.9-centimeter banner is first enlarged by dividing its length by 0.1. Then the enlarged length is reduced by multiplying it by 0.01. What is the final length?

WORK SPACE AND ANSWER

ANSWER KEY # Decimal Shift Quest

GRADE 5 · MA.5.NSO.2.5

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	62.8 × 0.1 = ___	**6.28**
2	15.4 × 0.01 = ___	**0.154**
3	93.7 ÷ 0.1 = ___	**937**
4	18.6 ÷ 0.01 = ___	**1,860**
5	304.5 × 0.1 = ___	**30.45**
6	70.2 ÷ 0.01 = ___	**7,020**

PART 2 · APPLY IT

1. **5.68 centimeters** Multiply 56.8 by 0.1. Move the decimal one place left to get 5.68.
2. **276 sections** Divide 27.6 by 0.1. Move the decimal one place right to get 276.

CHALLENGE

6.89 centimeters

Accept equivalent number forms, such as 1860 for 1,860. For the challenge, students may show 68.9 ÷ 0.1 = 689, then 689 × 0.01 = 6.89.