LESSON MAKER PRO

Decimal Detective Work

Multiply and divide decimals in everyday situations.

GRADE 6 · 6.NOS.B.3.c

6.NOS.B.3.c "Use a standard algorithm to multiply and divide decimals."

NAME _____ DATE _____

PLACE THE DECIMAL

To multiply decimals, multiply as if they were whole numbers. Then place the decimal point so the product has the total number of decimal places in the factors. To divide by a decimal, move the decimal point the same number of places right in both numbers until the divisor is a whole number, then divide.

WORKED EXAMPLE

Multiply 1.24 x 3.5.

1. Multiply 124 x 5 = 620.
2. Multiply 124 x 30 = 3,720.
3. Add the partial products: 620 + 3,720 = 4,340.
4. The factors have three decimal places in all, so 4,340 becomes 4.340.

Answer: 4.34

PRACTICE 6 problems

1 Multiply 4.7 x 1.6.

ANSWER _____

2 Multiply 0.38 x 2.4.

ANSWER _____

3 Multiply 6.25 x 0.32.

ANSWER _____

4 Divide 8.64 / 0.4.

ANSWER _____

5 Divide 7.56 / 0.12.

ANSWER _____

6 Divide 4.725 / 1.5.

ANSWER _____

APPLY IT Show your work

1 Each video for a class project takes up 1.28 GB of storage. How much storage do 7 videos take up?

WORK SPACE

ANSWER _____

2 You have 11.52 meters of cord for making keychains. Each keychain needs 0.48 meter of cord. How many keychains can you make?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Find (5.76 / 0.24) x 0.35. Show how you use the standard algorithms for both steps.

WORK SPACE AND ANSWER

ANSWER KEY

Decimal Detective Work

GRADE 6 · 6.NOS.B.3.c

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Multiply 4.7 x 1.6.	**7.52**
2	Multiply 0.38 x 2.4.	**0.912**
3	Multiply 6.25 x 0.32.	**2**
4	Divide 8.64 / 0.4.	**21.6**
5	Divide 7.56 / 0.12.	**63**
6	Divide 4.725 / 1.5.	**3.15**

PART 2 · APPLY IT

1. **8.96 GB** Multiply 1.28 x 7 = 8.96. The 7 videos take up 8.96 GB.
2. **24 keychains** Divide 11.52 / 0.48 by calculating 1,152 / 48 = 24. There is enough cord for 24 keychains.

CHALLENGE

8.4. Dividing 576 / 24 gives 24. Multiplying 24 x 35 gives 840, and placing two decimal places gives 8.40.

Accept equivalent decimal forms, such as 2.00 for 2. For the challenge, look for both the division and multiplication steps.