LESSON MAKER PRO

Unit Switch Challenge

Use conversion factors to move between measurement units.

GRADE 7 · 7.CE.2.c

7.CE.2.c "Apply proportional reasoning to solve problems in context, including converting units of measurement, when given the conversion factor."

NAME _____ DATE _____

USE THE FACTOR

A conversion factor tells how many of one unit equal another unit. Multiply or divide so the unit you start with changes into the unit the question asks for.

WORKED EXAMPLE

Convert 7 yards to feet. A yard equals 3 feet.

1. Start with 7 yards.
2. Multiply by 3 feet for each yard: 7 x 3 = 21.
3. Write the new unit, feet.

Answer: 21 feet

PRACTICE 6 problems

1 Convert 48 inches to feet. Use 12 inches per foot.

ANSWER _____

2 Convert 5 miles to feet. Use 5,280 feet per mile.

ANSWER _____

3 Convert 64 ounces to pounds. Use 16 ounces per pound.

ANSWER _____

4 Convert 250 centimeters to meters. Use 100 centimeters per meter.

ANSWER _____

5 Convert 2 days to hours. Use 24 hours per day.

ANSWER _____

6 Convert 240 seconds to minutes. Use 60 seconds per minute.

ANSWER _____

APPLY IT Show your work

1 For a school game night, Maya fills a drink cooler with 2.5 liters of water. How many milliliters of water is that? Use 1,000 milliliters per liter.

WORK SPACE

ANSWER _____

2 Eli is adding LED lights around a gaming desk. He needs 6 feet of lights. How many inches of lights does he need? Use 12 inches per foot.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A drink dispenser holds 1.5 gallons. How many cups does it hold? Use 4 quarts per gallon, 2 pints per quart, and 2 cups per pint.

WORK SPACE AND ANSWER

ANSWER KEY

Unit Switch Challenge

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Convert 48 inches to feet. Use 12 inches per foot.	**4 feet**
2	Convert 5 miles to feet. Use 5,280 feet per mile.	**26,400 feet**
3	Convert 64 ounces to pounds. Use 16 ounces per pound.	**4 pounds**
4	Convert 250 centimeters to meters. Use 100 centimeters per meter.	**2.5 meters**
5	Convert 2 days to hours. Use 24 hours per day.	**48 hours**
6	Convert 240 seconds to minutes. Use 60 seconds per minute.	**4 minutes**

PART 2 · APPLY IT

1. **2,500 milliliters** Multiply 2.5 liters by 1,000 milliliters per liter. The cooler holds 2,500 milliliters.
2. **72 inches** Multiply 6 feet by 12 inches per foot. Eli needs 72 inches of lights.

CHALLENGE

24 cups

Accept equivalent forms for 2.5 meters, such as 2 1/2 meters. Require the correct converted unit with each answer.