

Practice

Converting Measurement Units

Study the example below. Then solve problems 17–19.

Example

There are 12 inches in 1 foot. Write 75 inches in feet and inches.

Look at how you could explain your work using conversions.

Feet are larger than inches, so the number of feet will be less than the number of inches. Divide.

There are 12 inches in 1 foot: $75 \div 12 = \frac{75}{12} = 6\frac{3}{12}$.

The whole number, 6, is the number of feet and the fraction, $\frac{3}{12}$, is $\frac{3}{12}$ foot. $\frac{1}{12}$ foot is 1 inch, so $\frac{3}{12}$ foot is 3 inches.

75 inches = 6 feet, 3 inches

Solution 6 feet, 3 inches



The student used division because inches are a smaller unit than feet!



Pair/Share

How can you check your answer?

- 17 How many quarts are there in $10\frac{1}{2}$ gallons? (4 quarts = 1 gallon)

Show your work.



How many quarts are in $\frac{1}{2}$ gallon?



Pair/Share

Draw a picture or make a table to support your answer.

Solution _____

- 18** One kilogram is equivalent to 1,000 grams. How many kilograms are equivalent to 450 grams?

Show your work.



Will the number of kilograms be greater or less than 450?

Solution _____

 **Pair/Share**

Did you and your partner solve the problem the same way?

- 19** There are 1,000 millimeters in 1 meter. How many millimeters are in 118 meters? Circle the letter of the correct answer.

- A** 0.0118 millimeter
- B** 0.118 millimeter
- C** 118,000 millimeters
- D** 1,180,000 millimeters

Emily chose **B** as the correct answer. How did she get that answer?



Which is a larger unit, millimeters or meters?

 **Pair/Share**

Does Emily's answer make sense?

Practice  **Converting Measurement Units****Solve the problems.****1** How many grams are equivalent to 75 kilograms?

- A 0.0075 gram
- B 0.075 gram
- C 75,000 grams
- D 750,000 grams

2 How many yards and feet are equivalent to 10,000 feet?

- A 3,333 yards, 0 feet
- B 3,333 yards, 1 foot
- C 277 yards, 28 feet
- D 30,000 yards, 0 feet

3 Write each measurement below in the table under an equivalent measure. Some of the measurements may not have an equivalent measure. $\frac{1}{2}$ quart

4 pints

16 cups

 $\frac{1}{4}$ gallon

8 pints

1 gallon	1 quart	1 pint