

Measure It Out

Use customary units to compare, convert, and solve.

GRADE 3 • 3.MDR.5.5

3.MDR.5.5 "Estimate and measure liquid volumes, lengths and masses of objects using customary units. Solve problems involving mass, length, and volume given in the same unit..."

NAME _____

DATE _____

THINK ABOUT UNIT SIZE

Customary units include inches, feet, yards, cups, pints, quarts, gallons, ounces, and pounds. When you trade smaller units for a larger unit, the number of units becomes smaller. When you trade a larger unit for smaller units, the number becomes larger.

WORKED EXAMPLE

A banner is 5 yards long. How many feet long is it?

1. Each yard has 3 feet.
2. $5 \times 3 = 15$.
3. The banner is 15 feet long.

Answer: 15 feet

PRACTICE 6 problems

1 2 quarts = ____ pints

ANSWER _____

2 18 inches = ____ foot and ____ inches

ANSWER _____

3 A bag of dog food weighs 7 pounds. Another bag weighs 9 pounds. What is the total mass?

ANSWER _____

4 A pitcher holds 6 cups of juice. You pour in 2 more cups. How many cups of juice are in the pitcher now?

ANSWER _____

5 Which holds more, 1 gallon or 10 cups?

ANSWER _____

6 24 ounces = ____ pound and ____ ounces

ANSWER _____

APPLY IT Show your work

- 1** At a school game night, 4 teams each bring 7 cups of lemonade. Then the club makes 6 more cups. How many cups of lemonade are there altogether?

WORK SPACE

ANSWER _____

- 2** Jay has a 36-inch roll of paper for a favorite-book poster. Jay cuts off 14 inches for a title strip and 9 inches for picture borders. How many inches of paper are left?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

One toy train track is 2 yards long. Another toy train track is 65 inches long. Which track is longer, and how much longer is it? Show or explain your reasoning.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	2 quarts = ____ pints	4 pints
2	18 inches = ____ foot and ____ inches	1 foot and 6 inches
3	A bag of dog food weighs 7 pounds. Another bag weighs 9 pounds. What is the total mass?	16 pounds
4	A pitcher holds 6 cups of juice. You pour in 2 more cups. How many cups of juice are in the pitcher now?	8 cups
5	Which holds more, 1 gallon or 10 cups?	1 gallon
6	24 ounces = ____ pound and ____ ounces	1 pound and 8 ounces

PART 2 • APPLY IT

1. **34 cups** Multiply 4×7 to find the cups brought by the teams. Add 6 more cups: $28 + 6 = 34$ cups.
2. **13 inches** Add the pieces cut off: $14 + 9 = 23$ inches. Subtract from 36 inches: $36 - 23 = 13$ inches.

CHALLENGE

The 2-yard track is longer by 7 inches. 2 yards = 72 inches, and $72 - 65 = 7$.

Accept correct unit labels with each answer. For problem 5, accept "1 gallon" or a correct comparison showing that 1 gallon equals 16 cups.