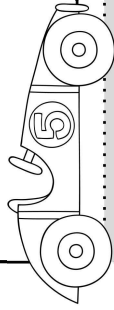


MEASUREMENT CONVERSIONS

Sixth grade students at West Middle School were placed on teams to build race cars in science class. They measure the distance that the race car travels from its starting point.

- First, determine the ratio of inches to feet. Feet to yards? Yards to feet?
- If a team's race car travels 14 feet, then how many inches did it travel?
- How could the students use a ratio table to convert 72 inches to feet?



MEASUREMENT CONVERSIONS

- A measurement can be converted to represent an equal amount with a different measure of unit.

Ex: inches to feet, grams to kilograms, ounces to pounds

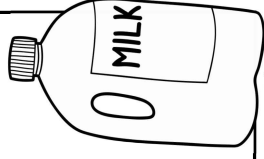
- Represent the conversion with a proportion, _____, or _____ . Then, solve.

1. A bag of flour weighs 4 pounds. The flour is priced per ounce. How many ounces of flour are in the bag?

3. Joan is 42 inches tall. What is Joan's height in feet?

2. The distance between two cities is 4 kilometers. How many meters apart are the two cities?

4. A hot chocolate recipe calls for 2.5 gallons of milk. How many quarts of milk are needed for the recipe?



CONVERSIONS WITH UNIT RATES

- Represent the conversion with a unit rate. Then, cancel the units and multiply.

$$\frac{16 \text{ yards}}{1} \times \frac{3 \text{ feet}}{1 \text{ yard}} =$$

Use your mathematics chart to set up unit rates to solve for the missing quantities.

5. How many cups are in 8 quarts?	6. How many centimeters are in 12 meters?
7. How many pounds are in 96 ounces?	8. How many yards are in 126 feet?

Use your understanding of measurement conversions to answer the questions below.

9. At the local health food store, macadamia nuts are priced at \$0.45 per ounce. Taylor measures out $1\frac{3}{4}$ pound of macadamia nuts. How much will Taylor pay for the macadamia nuts?

10. Mrs. Alejandro places four cards on the board. Which does not represent the same distance?

A
36 yards

B
432 feet

C
1,296 inches

D
108 feet

11. Drake says that 8 cups is equal to a quart because there are two cups in a pint and 4 pints in a quart. Determine if Drake is correct or not. Justify your solution.


MEASUREMENT CONVERSIONS

Solve the problem on card A. Draw a line from the arrow on card A to its solution in the top corner of a card in column #2. Then solve the corresponding problem. Continue to draw lines showing the path from each card to its solution in the opposite column until you end at the solution on card A.

A

1,128

How many ounces are in 4 pints?



B

64

A recipe calls for 40 ounces of meat. How many pounds of meat does the recipe require?

C

25

In the chemistry lab, an experiment requires 500mL of one ingredient to be mixed with 1,000mL of another. How many liters is the solution?

D

1.5

Justice needs 24 feet of fencing to surround his garden. The fencing is priced at \$0.25 per inch. How much will it cost Justice to fence in his garden?

E

2.5

A Ford F-150 truck is considered a half-ton truck because that is how much it can haul. How many pounds can the truck haul?

F

1,000

2,500 centimeters equals how many meters?

G

72

A regulation baseball field measures 90 feet between each base. What is the distance around the bases in yards?

H

120

NBA regulations require the basketball court to be 94 feet long. How many inches is the length of the court?

COLUMN #1

COLUMN #2