

Pg 82 Examples of measurement 6.9

Customary

Metric

pg 83

6.9 Basics

Capacity - A measure of the ability to receive, hold, or absorb volume.

Length - A measure used as a unit to estimate distances.

Weight - Weight is determined by the pull of gravity on the mass of an object. The weight of an object changes dependent on the gravitational pull at its location.

Mass - Mass is the amount of matter in an object. The mass of an object remains the same regardless of its location. In everyday life, most people are actually interested in determining an object's mass, although they use the term *weight*, as shown by the questions: "How much does it weigh?" versus "What is its mass?"

Volume - The amount of space that a three dimensional figure contains. Volume is expressed in cubic units; it tells you the number of cubes of a given size are used to fill the figure.

Area - The product of the length and the width ($A = l \times w$). The area of a triangle is one half of the measure of the base times the height:
 $A = bh$, or $A = bh \div 2$.

Square Unit - Units used when measuring the area of a two-dimensional figure.

Key Vocabulary for 6.9

U. S. Customary System			Metric System		
<u>length</u>	<u>weight/mass</u>	<u>liquid volume/capacity</u>	<u>length</u>	<u>weight/mass</u>	<u>liquid volume/capacity</u>
foot inch mile yard	mass ounce pound weight ton	cup gallon ounce pint quart	centimeter kilometer meter millimeter	gram kilogram mass weight	liter milliliter

Customary Units	Metric Units
1 inch	2.54 centimeters
1 foot	30.48 centimeters or 0.3048 meter
1 yard	0.914 meter
1 mile	1.609 kilometers
1 ounce	28.350 grams
1 pound	454 grams or 0.454 kilogram
1 fluid ounce	29.574 milliliters
1 quart	0.946 liter
1 gallon	3.785 liters

MEASURE AND COMPARE

Weight



1 pound = 16 ounces

8 ounces of grapes weigh

- A. 1 pound
- B. 1/2 pound
- C. 2 pounds



The kitten weighs
2 pounds. How many
ounces does it weigh?

_____ ounces



Which weighs more?

- A. 12 ounces of oranges
- B. 2 pounds of apples



Volume



1 quart = 4 cups



1 pint = 2 cups

How many pints are in
1 quart of juice?

- A. 2 pints
- B. 3 pints
- C. 4 pints

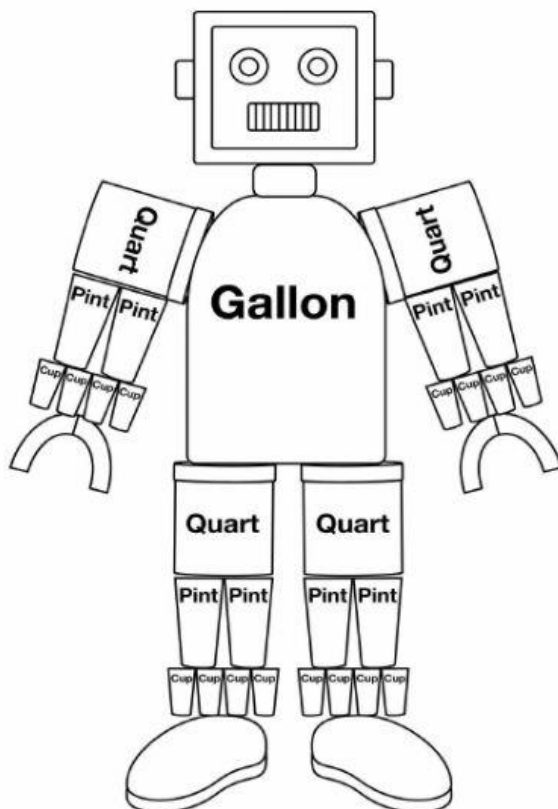
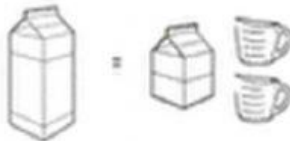


How many cups are in
2 quarts of milk?

- A. 6 cups
- B. 10 cups
- C. 8 cups



True or False



Name : _____ Score : _____

Teacher : _____ Date : _____

Converting English and Metric

- 1) _____ ounces = 10.5 grams
- 2) _____ mph = 14.5 kmph
- 3) 9.5 cubic yards = _____ cubic meters
- 4) _____ pounds = 4.5 kilograms
- 5) 8.5 fluid ounces = _____ milliliters
- 6) 20 square yards = _____ square meters
- 7) _____ teaspoons = 11.5 milliliters
- 8) _____ cups = 14 liters
- 9) _____ square inches = 3.5 square centimeters
- 10) _____ inches = 9 centimeters
- 11) 13.5 cubic feet = _____ cubic meters
- 12) 2 feet = _____ meters
- 13) 15 cubic inches = _____ milliliters
- 14) 25 cups = _____ liters
- 15) _____ teaspoons = 19 milliliters
- 16) _____ miles = 1 kilometers
- 17) 4 tablespoons = _____ milliliters
- 18) 22 tablespoons = _____ milliliters
- 19) _____ gallons = 13 liters
- 20) 6 gallons = _____ liters