Name _____

Measurement Benchmarks

COMMON CORE STANDARD—4.MD.1
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

Use benchmarks to choose the customary unit you would use to measure each.

1. height of a computer

   foot

2. weight of a table

   _____

3. length of a semi-truck

   _____

4. the amount of liquid a bathtub holds

   _____

Customary Units	
ounce	yard
pound	mile
inch	gallon
foot	cup

Use benchmarks to choose the metric unit you would use to measure each.

5. mass of a grasshopper

   _____

6. the amount of liquid a water bottle holds

   _____

7. length of a soccer field

   _____

8. length of a pencil

   _____

Metric Units	
milliliter	centimeter
liter	meter
gram	kilometer
kilogram	

Circle the better estimate.

9. mass of a chicken egg

   50 grams 50 kilograms

10. length of a car

    12 miles 12 feet

11. amount of liquid a drinking glass holds

    8 ounces 8 quarts

Complete the sentence. Write *more* or *less*.

12. A camera has a length of _____ than one centimeter.

13. A bowling ball weighs _____ than one pound.

Problem Solving Real World

14. What is the better estimate for the mass of a textbook, 1 gram or 1 kilogram?

    _____

15. What is the better estimate for the height of a desk, 1 meter or 1 kilometer?

    _____

Lesson Check (4.MD.1)

1. What unit would be best to use for measuring the weight of a stapler?

2. Which is the best estimate for the length of a car?

Spiral Review (4.NF.4c, 4.NF.6, 4.MD.5a, 4.MD.5b, 4.G.2)

3. Bart practices his trumpet $1\frac{1}{4}$ hours each day. How many hours will he practice in 6 days?

4. Millie collected 100 stamps from different countries. Thirty-two of the stamps are from countries in Africa. What is $\frac{32}{100}$ written as a decimal?

5. Diedre drew a quadrilateral with 4 right angles and opposite sides of the same length. What kind of polygon did Diedre draw?

6. How many degrees are in an angle that turns through $\frac{1}{2}$ of a circle?

Name _____

Customary Units of Length

Common Core Standard—4.MD.1
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

Complete.

1. 3 feet = 36 inches Think: 1 foot = 12 inches, so 3 feet = 3 = 12 inches, or 36 inches

2. 2 yards = _____ feet

3. 8 feet = _____ inches

4. 7 yards = _____ feet

5. 4 feet = _____ inches

6. 15 yards = _____ feet

7. 10 feet = _____ inches

Compare using <, >, or =.

8. 3 yards ◯ 10 feet

9. 5 feet ◯ 60 inches

10. 8 yards ◯ 20 feet

11. 3 feet ◯ 10 inches

12. 3 yards ◯ 21 feet

13. 6 feet ◯ 72 inches

Problem Solving Real World

14. Carla has two lengths of ribbon. One ribbon is 2 feet long. The other ribbon is 30 inches long. Which length of ribbon is longer? **Explain.**

_____

_____

_____

_____

15. A football player gained 2 yards on one play. On the next play, he gained 5 feet. Was his gain greater on the first play or the second play? **Explain.**

_____

_____

_____

_____

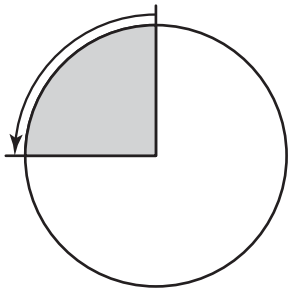
Lesson Check (4.MD.1)

1. Marta has 14 feet of wire to use to make necklaces. She needs to know the length in inches so she can determine how many necklaces to make. How many inches of wire does Marta have?

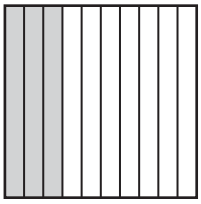
2. Jarod bought 8 yards of ribbon. He needs 200 inches to use to make curtains. How many inches of ribbon does he have?

Spiral Review (4.NF.6, 4.MD.1, 4.MD.2, 4.MD.5a)

3. Describe the turn shown below. (Be sure to include both the size and direction of the turn in your answer.)



4. What decimal represents the shaded part of the model below?



5. Three sisters shared $3.60 equally. How much did each sister get?

6. Which is the best estimate for the width of your index finger?

Name _____

Customary Units of Weight

Common Core Standard—4.MD.1
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

Complete.

1. 5 pounds = 80 ounces

Think: 1 pound = 16 ounces, so
5 pounds = 5 × 16 ounces, or 80 ounces

2. 7 tons = _____ pounds

3. 2 pounds = _____ ounces

4. 3 tons = _____ pounds

5. 10 pounds = _____ ounces

6. 5 tons = _____ pounds

7. 7 pounds = _____ ounces

Compare using <, >, or =.

8. 8 pounds ◯ 80 ounces

9. 1 ton ◯ 100 pounds

10. 3 pounds ◯ 50 ounces

11. 5 tons ◯ 1,000 pounds

12. 16 pounds ◯ 256 ounces

13. 8 tons ◯ 16,000 pounds

Problem Solving Real World

14. A company that makes steel girders can produce 6 tons of girders in one day. How many pounds is this?

_____

15. Larry's baby sister weighed 6 pounds at birth. How many ounces did the baby weigh?

_____

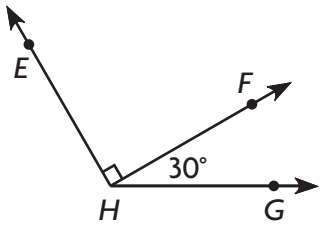
Lesson Check (4.MD.1)

1. Ann bought 2 pounds of cheese to make lasagna. The recipe gives the amount of cheese needed in ounces. How many ounces of cheese did she buy?

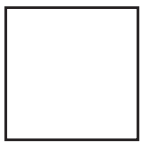
2. A school bus weighs 7 tons. The weight limit for a bridge is given in pounds. What is this weight of the bus in pounds?

Spiral Review (4.NF.4c, 4.MD.1, 4.MD.7, 4.G.3)

3. What is the measure of $\angle EHG$?



4. How many lines of symmetry does the square below have?



5. To make dough, Reba needs $2\frac{1}{2}$ cups of flour. How much flour does she need to make 5 batches of dough?

6. Judi's father is 6 feet tall. The minimum height to ride a rollercoaster is given in inches. How many inches tall is Judi's father?

Name _____

Customary Units of Liquid Volume

Common Core Standard—4.MD.1
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

Complete.

1. 6 gallons = 24 quarts

Think: 1 gallon = 4 quarts,
so 6 gallons = 6 × 4 quarts, or 24 quarts

2. 12 quarts = _____ pints

3. 6 cups = _____ fluid ounces

4. 9 pints = _____ cups

5. 10 quarts = _____ cups

6. 5 gallons = _____ pints

7. 3 gallons = _____ cups

Compare using <, >, or =.

8. 6 pints ◯ 60 fluid ounces

9. 3 gallons ◯ 30 quarts

10. 5 quarts ◯ 20 cups

11. 6 cups ◯ 12 pints

12. 8 quarts ◯ 16 pints

13. 6 gallons ◯ 96 pints

Problem Solving Real World

14. A chef makes $1\frac{1}{2}$ gallons of soup in a large pot. How many 1-cup servings can the chef get from this large pot of soup?

_____

15. Kendra's water bottle contains 2 quarts of water. She wants to add drink mix to it, but the directions for the drink mix give the amount of water in fluid ounces. How many fluid ounces are in her bottle?

_____

Lesson Check (4.MD.1)

1. Joshua drinks 8 cups of water a day. The recommended daily amount is given in fluid ounces. How many fluid ounces of water does he drink each day?

2. A cafeteria used 5 gallons of milk in preparing lunch. How many 1-quart containers of milk did the cafeteria use?

Spiral Review (4.NF.4a, 4.NF.6, 4.MD.1, 4.G.1)

3. Roy uses $\frac{1}{4}$ cup of batter for each muffin. Make a list to show the amounts of batter he will use depending on the number of muffins he makes.

4. Beth has $\frac{7}{100}$ of a dollar. What is the amount of money Beth has?

5. Name the figure that Enrico drew below.

6. A hippopotamus weighs 4 tons. Feeding instructions are given for weights in pounds. How many pounds does the hippopotamus weigh?

Name _____

Line Plots

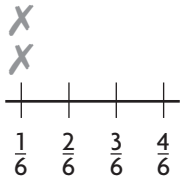
COMMON CORE STANDARD—4.MD.4
Represent and interpret data.

1. Some students compared the time they spend riding the school bus. Complete the tally table and line plot to show the data.

Time Spent on School Bus
(in hours)

$\frac{1}{6}, \frac{3}{6}, \frac{4}{6}, \frac{2}{6}, \frac{3}{6}, \frac{1}{6}, \frac{3}{6}, \frac{3}{6}$

Time Spent on School Bus	
Time (in hours)	Tally
$\frac{1}{6}$	
$\frac{2}{6}$	
$\frac{3}{6}$	
$\frac{4}{6}$	



Time Spent on School Bus (in hours)

Use your line plot for 2 and 3.

2. How many students compared times? _____

3. What is the difference between the longest time and shortest time students spent riding the bus? _____

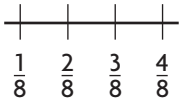
Problem Solving Real World

For 4–5, make a tally table on a separate sheet of paper. Make a line plot in the space below the problem.

4.

Milk Drunk at Lunch
(in quarts)

$\frac{1}{8}, \frac{2}{8}, \frac{2}{8}, \frac{4}{8}, \frac{1}{8}, \frac{3}{8}, \frac{4}{8}, \frac{2}{8}, \frac{3}{8}, \frac{2}{8}$

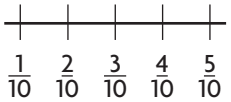


Milk Drunk at Lunch (in quarts)

5.

Distance Between Stops for a Rural Mail Carrier (in miles)

$\frac{3}{10}, \frac{4}{10}, \frac{5}{10}, \frac{1}{10}, \frac{5}{10}, \frac{4}{10}, \frac{4}{10}, \frac{3}{10}$

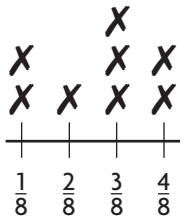


Distance Between Stops for a Rural Mail Carrier (in miles)

Lesson Check (4.MD.4)

Use the line plot for 1 and 2.

1. How many students were reading during study time?



Time Spent Reading During Study Time (in hours)

2. What is the difference between the longest time and shortest time spent reading?

Spiral Review (4.NF.5, 4.MD.1)

3. Bridget is allowed to play on-line games for $\frac{75}{100}$ of an hour each day. Write this fraction as a decimal.

4. Bobby's collection of sports cards has $\frac{3}{10}$ baseball cards and $\frac{39}{100}$ football cards. The rest are soccer cards. What fraction of Bobby's sports cards are baseball or football cards?

5. Jeremy gives his horse 12 gallons of water each day. How many 1-quart pails of water is that?

6. An iguana at a pet store is 5 feet long. Measurements for iguana cages are given in inches. How many inches long is the iguana?