College Prep Math
Unit 3 Review: Measurement

Name: _____

Conversion Chart

(these will be given on the test - you don't need to memorize)

	Length	Weight	Capacity
Customary	1 foot = 12 inches 1 yard = 3 feet 1 mile = 5,280 feet	1 pound = 16 ounces 1 ton = 2,000 pounds	1 cup = 8 fluid ounces 1 pint = 2 cups 1 quart = 2 pints 1 gallon = 4 quarts
Metric	1 kilometer = 1,000 meters 1 hectometer = 100 meters 1 dekameter = 10 meters 1 meter = 10 decimeters 1 meter = 100 centimeters 1 meter = 1,000 millimeters	1 kilogram = 1,000 grams 1 hectogram = 100 grams 1 dekagram = 10 grams 1 gram = 10 decigrams 1 gram = 100 centigrams 1 gram = 1,000 milligrams	1 kiloliter = 1,000 liters 1 hectoliter = 100 liters 1 dekaliter = 10 liters 1 liter = 10 deciliters 1 liter = 100 centiliters 1 liter = 1,000 milliliters

Metric to U.S. Customary	U.S. Customary to Metric
1 centimeter ≈ 0.39 inch	1 inch ≈ 2.54 centimeters
1 meter ≈ 3.28 feet	1 foot ≈ 0.3 meter
1 kilometer ≈ 0.6 mile	1 mile ≈ 1.6 kilometers
1 liter ≈ 1.06 quarts	1 quart ≈ 0.95 liter
1 liter ≈ 0.26 gallon	1 gallon ≈ 3.79 liters
1 kilogram ≈ 2.2 pounds	1 cup ≈ 237 milliliters
1 gram ≈ 0.035 ounce	1 pound ≈ 0.45 kilogram
1 cubic meter ≈ 264 gallon	1 ounce ≈ 28.3 grams
	1 gallon ≈ 3785 cubic centimeters

Time

1 minute = 60 seconds
1 hour = 60 minutes
1 day = 24 hours
1 week = 7 days
1 year = 365 days

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1. Robin bought 6 pints of chocolate milk. How many fluid ounces of chocolate milk did Robin buy?

2. A team of researchers spent four weeks surveying a plot of land. How many minutes did they spend surveying the land?

3. A half-marathon is about 13 miles long. Approximately how many feet is a half-marathon?

4. Sawyer is painting his bedroom walls, and the paint costs $36 per gallon. How much does the paint cost per quart?

5. How many minutes are in 4 hours?

6. How many gallons equal 12 quarts?

7. How many ounces are in 2 tons?

8. Lincoln pours 2.5 liters of soda and 1.5 liters of juice a large pitcher. How many kiloliters are in the pitcher?

9. Luna finds that the distance between two cities is 38,700,000 millimeters. What is the distance between the two cities in kilometers?

10. 4.5 kilograms is equivalent to how many hectograms?

11. Approximately how many deciliters are in 8 cups?

12. Cooper is writing a report about the height of different structures. He notes that one structure has a height of 13 meters, but he needs to convert the height from meters to yards for his report. How many yards is the height of the structure?

13. Find the number of liters in 15 quarts.

14. Delaney walked at a rate of 92 feet per minute. What was her approximate speed in miles per hour?

15. The cruising speed of a 747 airplane is approximately 9,944 inches per second. What is this speed to the nearest foot per second?

16. An olympian swam the 200-meter freestyle at a speed of 1.7 meters per second. An olympic runner ran the 200-meter dash in 20.3 seconds. Approximately how much faster was the runner's speed than the swimmer's speed?

17. The table shows the distances and times that four people ran. Who ran the fastest?

Name	Distance	Time
Anton	3.2 miles	20 minutes
Betsy	3.4 miles	20 minutes
Christine	2.6 miles	20 minutes
Donovan	2.8 miles	20 minutes

18. Luis has 5 bushels of cereal. He wants to pour all the cereal into boxes that can each hold 1 peck. How many boxes will he need? (4 pecks = 1 bushel)

A. 4

B. 8

C. 16

D. 20

19. Rick traveled 6.8 kilometers of his delivery route in 1.2 hours. At this same rate, which of the following is closest to the time it will take for Rick to travel 20 kilometers?

A. 3 hours

B. 3.5 hours

C. 6 hours

D. 6.5 hours

20. If the price of 3 oranges is $1.95, what is the price of 14 oranges?

A. $5.50

B. $8.70

C. $9.10

D. $9.85

21. If a car travels at an average speed of x miles per hour, how far would the car travel in 90 **minutes**?

A. $\frac{x}{2}$

B. $\frac{3x}{2}$

C. $2x$

D. $\frac{9x}{2}$

22. The ingredients listed below make 40 peanut butter balls. A school party has 120 children and each child will be given 2 peanut butter balls. How many cups of peanut butter must be used in order to make exactly enough peanut butter balls for the children at the party?

$1\frac{1}{2}$ cups peanut butter

$\frac{3}{8}$ cup confectioners' sugar

$\frac{3}{4}$ cup condensed milk

A. 5

B. 6

C. 9

D. 12

23. Running at an average rate of 9 miles per hour, how many minutes would it take Kyle to run 3 miles?

A. 15

B. 20

C. 27

D. 30

24. Rachel made a casserole for dinner. The recipe says to bake the casserole in the oven for 1 hour and 45 minutes at 350 degrees, remove from the oven, and cool for 10 minutes. If she puts the casserole in the oven at 4:20 pm, at what time will the casserole be ready to eat?

A. 5:50 pm

B. 5:55 pm

C. 6:05 pm

D. 6:15 pm

25. Aristotle drove from Austin to Blanco at an average speed of 45 miles per hour. If he drove for 40 minutes, how far did he travel? (1 hour = 60 minutes)

A. 5 miles

B. 15 miles

C. 18 miles

D. 30 miles