

Diagnostic Test

Unit 9 Customary Measurement

Purpose: to help the student and instructor determine what, if any, sections of this unit the student needs to study.

Use a ruler or yard stick and draw lines of the following length.

- 5 inches
- 1 foot 1 inch
- 15 inches
- $2\frac{7}{8}$ inches
- 1 foot $6\frac{3}{16}$ inches
- _____
 - What is the length of the above line to the nearest $\frac{1}{2}$ in.?
 - What is the length of the above line to the nearest $\frac{1}{4}$ in.?
 - What is the length of the above line to the nearest $\frac{1}{8}$ in.?
 - What is the length of the above line to the nearest $\frac{1}{16}$ in.?
- (This problem is not done on paper.) With the instructor watching you, measure a length of 1 yard 1 foot 4 inches long.

Choose the measurement that makes the most sense.

- Distance across the top of a coffee cup:
 $3\frac{1}{2}$ inches 10 inches 1 yard
- Distance you can move if you take one big step:
1 foot 1 yard 3 yards
- How many feet and inches is the length in question 7?
- How many total inches is the distance in question 7?

Use the table below and change the units in questions 12–14.

Customary units of distance

$$12 \text{ inches} = 1 \text{ foot}$$

$$3 \text{ feet} = 1 \text{ yard} = 36 \text{ inches}$$

$$5,280 \text{ feet} = 1 \text{ mile} = 1,760 \text{ yards}$$

12. 19,536 feet = _____ miles _____ feet

13. 30 yards = _____ inches

14. Change 56 inches to feet and inches.

Use the table below and change the units in questions 15–17.

Customary units of weight

$$16 \text{ ounces} = 1 \text{ pound}$$

$$2,000 \text{ pounds} = 1 \text{ ton}$$

15. 3 pounds 10 ounces = _____ ounces

16. 99 ounces = _____ pounds _____ ounces

17. 6,160 pounds = _____ tons _____ pounds

Choose the measurement that makes the most sense.

18. Weight of a stapler:

6 ounces

6 pounds

26 pounds

19. Weight of a high school student:

12 pounds

120 pounds

120 tons

Use the table below and answer questions 20–22.

Customary units of volume

$$8 \text{ fluid ounces} = 1 \text{ cup}$$

$$2 \text{ cups} = 1 \text{ pint}$$

$$2 \text{ pints} = 1 \text{ quart}$$

$$4 \text{ quarts} = 1 \text{ gallon}$$

20. Change 64 fluid ounces to _____ pints.

21. 7 quarts = _____ cups

22. 48 fluid ounces = _____ quarts

Choose the measurement that makes the most sense.

23. Volume of water in a bathtub:

30 fluid ounces

30 cups

30 gallons

24. Volume of a can of soda:

12 fluid ounces

12 pints

12 quarts