

**LESSON**  
**9-3** **Practice B**  
**Converting Customary Units**

**Convert.**

1. 3 yards = \_\_\_\_\_ inches
2. \_\_\_\_\_ yards = 87 feet
3. \_\_\_\_\_ cups = 104 fluid ounces
4. 4 quarts = \_\_\_\_\_ pints
5. 4 pounds = \_\_\_\_\_ ounces
6. 80 ounces = \_\_\_\_\_ pounds
7. 5 miles = \_\_\_\_\_ yards
8. \_\_\_\_\_ gallons = 48 cups
9. \_\_\_\_\_ cups = 4 pints
10. 36 inches = \_\_\_\_\_ yards

**Compare. Write <, >, or =.**

11. 4 quarts  24 cups
12. 2.5 feet  32 inches
13. 8 ounces   $\frac{1}{4}$  pound
14. 5 cups  40 fluid ounces
15. 56 ounces  3.5 pounds
16. 2 yards  5 feet
17. 1.5 miles  2,500 yards
18.  $3\frac{1}{2}$  tons  6,000 pounds

19. Cassandra drank  $8\frac{1}{2}$  cups of water during the mountain hike.  
How many fluid ounces of water did she drink?

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20. Stan cut a wooden plank into 4 pieces. Each piece was  
18 inches long. How long was the plank before Stan cut it?

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**LESSON 9-3 Practice A**  
**Converting Customary Units**

Convert.

1. 1 yard = 3 feet                      2. 1 mile = 1,760 yards

3. 1 pound = 16 ounces                4. 1 ton = 2,000 pounds

5. 1 pint = 2 cups                        6. 1 quart = 2 pints

7. 1 quart = 4 cups                        8. 1 gallon = 4 quarts

9. 24 inches = 2 feet                    10. 8 pints = 4 quarts

11. 8 quarts = 2 gallons                12. 3 pounds = 48 ounces

13. 72 inches = 2 yards                14. 10,000 pounds = 5 tons

Compare. Write  $<$ ,  $>$ , or  $=$ .

15. 28 inches  $\square$  1 yard                16. 120 inches  $\square$  10 feet

17. 2 pints  $\square$  4 cups                    18. 22 inches  $\square$  2 feet

19. George's two rabbits each weigh 24 ounces. How many pounds do they weigh together?  
3 pounds

20. Loretta needs to add 2 gallons of water to her fish tank, but she only has a cup to measure the water. How many cups does she need to add?  
32 cups

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**LESSON 9-3 Practice B**  
**Converting Customary Units**

Convert.

1. 3 yards = 108 inches                2. 29 yards = 87 feet

3. 13 cups = 104 fluid ounces        4. 4 quarts = 8 pints

5. 4 pounds = 64 ounces                6. 80 ounces = 5 pounds

7. 5 miles = 8,800 yards                8. 3 gallons = 48 cups

9. 8 cups = 4 pints                        10. 36 inches = 1 yards

Compare. Write  $<$ ,  $>$ , or  $=$ .

11. 4 quarts  $\square$  24 cups                    12. 2.5 feet  $\square$  32 inches

13. 8 ounces  $\square$   $\frac{1}{4}$  pound                14. 5 cups  $\square$  40 fluid ounces

15. 56 ounces  $\square$  3.5 pounds            16. 2 yards  $\square$  5 feet

17. 1.5 miles  $\square$  2,500 yards            18.  $3\frac{1}{2}$  tons  $\square$  6,000 pounds

19. Cassandra drank  $8\frac{1}{2}$  cups of water during the mountain hike. How many fluid ounces of water did she drink?  
68 fluid ounces

20. Stan cut a wooden plank into 4 pieces. Each piece was 18 inches long. How long was the plank before Stan cut it?  
72 inches or 6 feet long

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**LESSON 9-3 Practice C**  
**Converting Customary Units**

Convert.

1. 9 feet = 3 yards                        2.  $\frac{6\frac{1}{2}}$  cups = 52 fluid ounces

3.  $1\frac{3}{4}$  miles = 3,080 yards            4. 2 gallons = 32 cups

5. 4,400 pounds =  $2\frac{1}{5}$  tons            6.  $1\frac{1}{2}$  yards = 54 inches

7. 40 ounces =  $\frac{1}{22}$  pounds                8.  $1\frac{2}{3}$  miles = 8,800 feet

9. 21 cups =  $5\frac{1}{4}$  quarts                10. 1,000 pounds =  $\frac{1}{2}$  ton

Compare. Write  $<$ ,  $>$ , or  $=$ .

11.  $4\frac{9}{10}$  pounds  $\square$  80 ounces            12. 365 inches  $\square$  10 yards

13. 3 miles  $\square$  5,280 yards                14. 10 quarts  $\square$  20 pints

15.  $6\frac{2}{3}$  feet  $\square$  80 inches                16. 4 gallons  $\square$  30 pints

17. 11 gallons  $\square$  40 quarts                18.  $13\frac{2}{3}$  yards  $\square$  40 feet

19. A Labrador retriever weighs 48 pounds. A huskie weighs 775 ounces. Which dog weighs more? by how many ounces?  
The huskie weighs 7 ounces more than the Labrador retriever.

20. Maria drove 176,000 yards in 2 hours. How many miles per hour did she drive on average?  
50 miles per hour

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**LESSON 9-3 Reteach**  
**Converting Customary Units**

You can use the table below to convert customary units.

Length	Weight	Capacity
1 foot = 12 inches	1 pound = 16 ounces	1 cup = 8 fluid ounces
1 yard = 36 inches	1 ton = 2,000 pounds	1 pint = 2 cups
1 yard = 3 feet		1 quart = 2 pints
1 mile = 5,280 feet		1 quart = 4 cups
1 mile = 1,760 yards		1 gallon = 4 quarts
		1 gallon = 128 fluid ounces

To figure out how many pounds are in 32 ounces, set up a proportion where the first ratio uses 16 ounces is 1 pound, and the second ratio uses a variable for the value you are trying to find.

$$\frac{16 \text{ ounces}}{1 \text{ pound}} = \frac{32 \text{ ounces}}{x \text{ pounds}}$$

Then solve the proportion.

$$\frac{16 \text{ ounces}}{1 \text{ pound}} = \frac{32 \text{ ounces}}{x \text{ pounds}}$$

16x = 32

**Think:**  $32 \div 16 = x$                       First, find the cross products.

$x = 2$

Then, use a related math sentence to solve the equation.

So, there are 2 pounds in 32 ounces.

Use the table above to set up a proportion. Then find each of the values.

1. the number of pounds in 80 ounces                      2. the number of quarts in 6 gallons

$$\frac{1}{16} = \frac{x}{80}$$

5 pounds

$$\frac{4}{1} = \frac{x}{6}$$

24 quarts

3. the number of yards in 5 miles                              4. the number of cups in 20 pints

$$\frac{1}{8,800} = \frac{x}{5}$$

8,800 yards

$$\frac{1}{4} = \frac{x}{20}$$

40 cups

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