

Changing Customary Units (pages 289–291)

Customary units of weight are the **ounce, pound, and ton.**

$$1 \text{ pound (lb)} = 16 \text{ ounces (oz)}$$

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

Customary units of liquid capacity are the **cup, pint, quart, and gallon.**

$$1 \text{ cup (c)} = 8 \text{ fluid ounces (fl oz)}$$

$$1 \text{ pint (pt)} = 2 \text{ cups}$$

$$1 \text{ quart (qt)} = 2 \text{ pints}$$

$$1 \text{ gallon (gal)} = 4 \text{ quarts}$$

Converting Units

- When you change from a larger unit to a smaller unit, multiply. There will be a greater number of smaller units than larger units.
- When you change from a smaller unit to a larger unit, divide. There will be fewer larger units than smaller units.

EXAMPLES

A Change 5 cups to pints.

Cup is a smaller unit than pint. Divide.

$$5 \div 2 = 2\frac{1}{2}$$

$$5 \text{ cups} = 2\frac{1}{2} \text{ pints}$$

B Change 32 pounds to ounces.

Pound is larger than ounce. Multiply.

$$32 \times 16 = 512$$

$$32 \text{ pounds} = 512 \text{ ounces}$$

Try These Together

1. $8 \text{ qt} = \underline{\quad ? \quad} \text{ gal}$

HINT: Quart is smaller than gallon.

2. $2 \text{ c} = \underline{\quad ? \quad} \text{ fl oz}$

HINT: Cup is larger than fluid ounce.

PRACTICE

Complete.

3. $3 \text{ T} = \underline{\quad ? \quad} \text{ lb}$

4. $5 \text{ qt} = \underline{\quad ? \quad} \text{ pt}$

5. $8 \text{ lb} = \underline{\quad ? \quad} \text{ oz}$

6. $8,000 \text{ lb} = \underline{\quad ? \quad} \text{ T}$

7. $5 \text{ gal} = \underline{\quad ? \quad} \text{ qt}$

8. $6 \text{ pt} = \underline{\quad ? \quad} \text{ qt}$

9. $5 \text{ pt} = \underline{\quad ? \quad} \text{ c}$

10. $12 \text{ qt} = \underline{\quad ? \quad} \text{ gal}$

11. $16 \text{ fl oz} = \underline{\quad ? \quad} \text{ c}$

12. Convert 10 pounds to ounces.

13. How many cups are in 4 pints?

14. **Space Exploration** During liftoff, the space shuttle's three main engines each use 1,000 lbs of fuel every second. How many tons of fuel do the three engines use together in one second?

15. **Food** A fast food restaurant sells 16-ounce drinks. How many cups are in a 16-ounce drink?



16. **Standardized Test Practice** Mauri's little sister weighed exactly 7 pounds when she was born. How many ounces did she weigh?

A 70

B 56

C 112

D 23

Answers: 1. 2 2. 16 3. 6,000 4. 10 5. 128 6. 4 7. 20 8. 3 9. 10 10. 3 11. 2 12. 160 oz 13. 8 c 14. 1.5 T 15. 2 cups 16. C