G5-M2-Lesson 14

1. Solve.

   a. Convert quarts to gallons.

   $$28 \text{ quarts} = 28 \times (1 \text{ quart})$$
   $$= 28 \times \left(\frac{1}{4} \text{ gallon}\right)$$
   $$= \frac{28}{4} \text{ gallons}$$
   $$= 7 \text{ gallons}$$

   > 1 quart is equal to $\frac{1}{4}$ gallon. I multiply 28 times $\frac{1}{4}$ gallon to find 7 gallons is equal to 28 quarts.

   b. Convert grams to kilograms.

   $$5{,}030 \text{ g} = 5{,}030 \times (1 \text{ g})$$
   $$= 5{,}030 \times (0.001 \text{ kg})$$
   $$= 5.030 \text{ kg}$$

   > 1 gram is equal to 0.001 kilogram. I multiply 5,030 times 0.001 kilogram to get 5.030 kilograms.

2. After solving, write a statement to express each conversion.

   a. A jug of milk holds 16 cups. Convert 16 cups to pints.

   $$16 \text{ cups} = 16 \times (1 \text{ cup})$$
   $$= 16 \times \left(\frac{1}{2} \text{ pint}\right)$$
   $$= \frac{16}{2} \text{ pints}$$
   $$= 8 \text{ pints}$$

   > 1 cup is equal to $\frac{1}{2}$ pint. I multiply 16 times $\frac{1}{2}$ pint to find that 8 pints is equal to 16 cups.

   16 cups is equal to 8 pints.

   b. The length of a table is 305 centimeters. What is its length in meters?

   $$305 \text{ cm} = 305 \times (1 \text{ cm})$$
   $$= 305 \times (0.01 \text{ m})$$
   $$= 3.05 \text{ m}$$

   > 1 centimeter is equal to 0.01 meter. I multiply 305 times 0.01 meter to get 3.05 meters.

   The table's length is 3.05 meters.