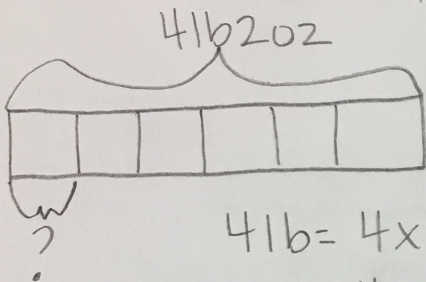


# Equivalent Measurements

Two-Step Word Problems with Conversions  
M2 L15

1. Liza's cat had six kittens. When Liza and her brother weighed all the kittens together, they weighed 4 pounds 2 ounces. Since all the kittens are about the same size, about how many ounces does each kitten weigh?

TS: Each kitten weighed about 11 ounces.

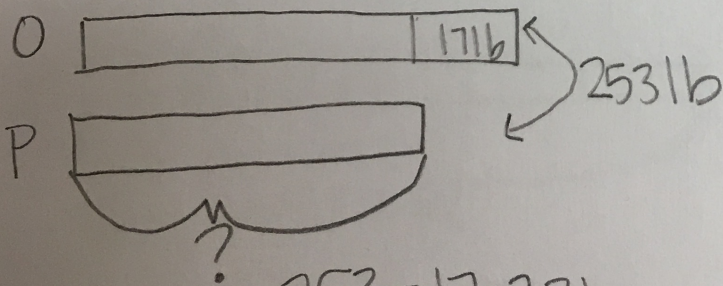


$$\begin{aligned} 4\text{lb} &= 4 \times (1\text{lb}) \\ &= 4 \times (16\text{oz}) \\ &= 64\text{oz} + 2\text{oz} = 66\text{oz} \end{aligned}$$

$$\begin{aligned} 6\text{units} &= 66\text{oz} \\ 1\text{unit} &= 66 \div 6 = \\ &= 11\text{oz} \end{aligned}$$

2. A container of oregano is 17 pounds heavier than a container of peppercorns. Their total weight is 253 pounds. The peppercorns will be sold in one-ounce bags. How many bags of peppercorns can be made?

TS: 1,888 bags of peppercorns can be made.

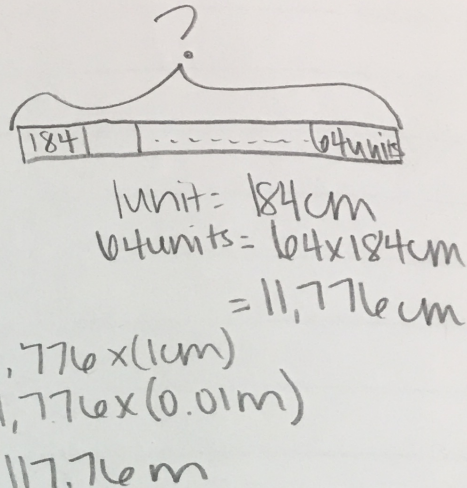
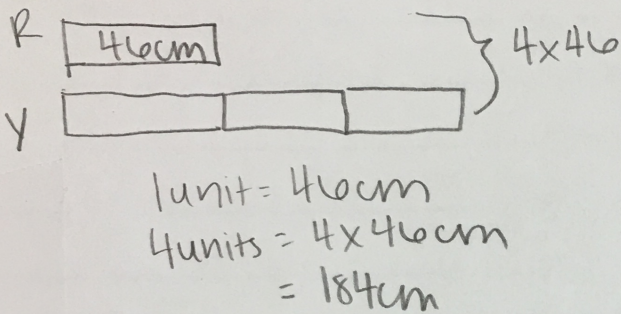


$$\begin{aligned} 253 - 17 &= 236 \\ 2\text{units} &= 236 \\ 1\text{unit} &= 236 \div 2 \\ &= 118 \end{aligned}$$

$$\begin{aligned} 118\text{lb} &= 118 \times (1\text{lb}) \\ &= 118 \times (16\text{oz}) \\ &= 1,888\text{oz} \end{aligned}$$

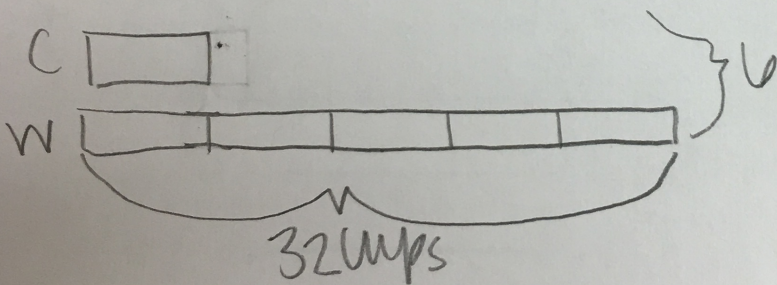
3. Each costume needs 46 centimeters of red ribbon and 5 times as much yellow ribbon. What is the total length of ribbon needed for 64 costumes? Express your answer in meters.

TS: The total length of ribbon needed for 64 costumes is 117.76 meters.



4. When making a batch of orange juice, Jackie used 5 times as much water as concentrate. There were 32 more cups of water than concentrate. How much juice did she make in all? If she pours the juice into quart containers, how many could she fill?

TS: Jackie made 48 cups of juice.



$$4 \text{ units} = 32 \text{ cups}$$

$$1 \text{ unit} = 8 \text{ cups}$$

$$6 \text{ units} = 6 \times 8 \text{ cups} = 48 \text{ cups}$$

TS: she could fill 12 containers.

$$48 \text{ cups} = 48 \times (1 \text{ cup})$$

$$= 48 \times \left(\frac{1}{4} \text{ qt}\right)$$

$$= \frac{48}{4} = 12$$