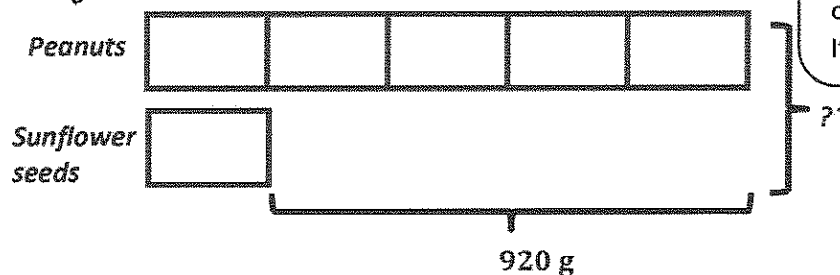## G5-M2-Lesson 15

1. A bag of peanuts is 5 times as heavy as a bag of sunflower seeds. The bag of peanuts also weighs 920 grams more than the bag of sunflower seeds.

    a. What is the total weight in grams for the bag of peanuts and the bag of sunflower seeds?

> I need to draw 5 units for the peanuts and 1 unit for the sunflower seeds.

> I label the total weight of the peanuts and the sunflower seeds with a question mark. This is what I'm trying to find out.

Peanuts

Sunflower seeds

?

920 g

> Since I know 4 units is equal to 920 grams, I'll divide 920 grams by 4 to find the value of 1 unit, which is equal to 230 grams.

4 units = 920 g

1 unit = 920 g ÷ 4

= 230 g

$$
\begin{array}{r}
2\ 3\ 0 \\
4\,\overline{\smash{\big)}\,9\ 2\ 0} \\
-\ 8 \\
\hline
1\ 2 \\
-\ 1\ 2 \\
\hline
0\ 0 \\
-\ \ 0 \\
\hline
0
\end{array}
$$

> There are a total of 6 units between the peanuts and the sunflower seeds. I multiply 6 times 230 grams to get a total of 1,380 grams.

6 units = 6 × 230 g

= 1,380 g

$$
\begin{array}{r}
2\ 3\ 0 \\
\times\ \ \ \ \ 6 \\
\hline
1,\ 3\ 8\ 0
\end{array}
$$

The total weight for the bag of peanuts and the bag of sunflower seeds is 1,380 grams.

b. Express the total weight of the bag of peanuts and the bag of sunflower seeds in kilograms.

$1,380 \text{ g} = 1,380 \times (1 \text{ g})$

$\qquad = 1,380 \times (0.001 \text{ kg})$

$\qquad = 1.380 \text{ kg}$

> 1 gram is equal to 0.001 kilogram. I multiply 1,380 times 0.001 kilogram to find that 1.38 kilograms is equal to 1,380 grams.

The total weight of the bag of peanuts and the bag of sunflower seeds is 1.38 kilograms.

> 4 meters 50 centimeters is equal to 450 centimeters.

2. Gabriel cut a 4 meter 50 centimeter string into 9 equal pieces. Michael cut a 508 centimeter string into 10 equal pieces. How much longer is one of Michael's strings than one of Gabriel's?

Gabriel: $450 \text{ cm} \div 9 = 50 \text{ cm}$

> Each piece of Gabriel's string is 50 centimeters long.

Michael: $508 \text{ cm} \div 10 = 50.8 \text{ cm}$

> Each piece of Michael's string is 50.8 centimeters long.

$50.8 \text{ cm} - 50 \text{ cm} = 0.8 \text{ cm}$

> I'll subtract to find the difference between Michael and Gabriel's strings.

One of Michael's strings is 0.8 centimeters longer than one of Gabriel's.