G5-M2-Lesson 29

1. Alonzo has 2,580.2 kilograms of apples to deliver in equal amounts to 19 stores. Eleven of the stores are in Philadelphia. How many kilograms of apples will be delivered to stores in Philadelphia?

$2,580.2 \div 19 = 135.8$

I can use division to find out how many kilograms of apples are delivered to each store. Each store receives 135.8 kilograms of apples.

$$
\begin{array}{r}
135.8 \\
19\overline{)2580.2} \\
-\ 19 \\
\hline
68 \\
-\ 57 \\
\hline
110 \\
-\ 95 \\
\hline
152 \\
-\ 152 \\
\hline
0
\end{array}
$$

$135.8 \times 11 = 1,493.8$

Since I know each store receives 135.8 kilograms of apples, then I use multiplication to find the total kilograms of apples that will be delivered to 11 stores in Philadelphia.

$$
\begin{array}{r}
135.8 \\
\times\ \ 11 \\
\hline
1358 \\
+\ 13580 \\
\hline
1493.8
\end{array}
$$

1493.8 kilograms of apples will be delivered to stores in Philadelphia.

2. The area of a rectangle is 88.4 m^2. If the length is 13 m, what is its perimeter?

In order to find the perimeter, I need to know the width of the rectangle.

$$\text{area} = \text{length} \times \text{width}$$
$$\text{width} = \text{area} \div \text{length}$$
$$= 88.4\ m^2 \div 13\ m$$
$$= 6.8\ m$$

$$\begin{array}{r} 6.\ 8 \\ 13 \overline{)\ 8\ 8.\ 4} \\ -\ 7\ 8 \\ \hline 1\ 0\ 4 \\ -\ 1\ 0\ 4 \\ \hline 0 \end{array}$$

I know the width is equal to the area divided by the length. The width of the rectangle is 6.8 meters.

$$\text{Perimeter of a rectangle} = \text{length} + \text{length} + \text{width} + \text{width}$$
$$= 13\ m + 13\ m + 6.8\ m + 6.8\ m$$
$$= 26\ m + 13.6\ m$$
$$= 39.6\ m$$

$$\begin{array}{r} 1\ 3.\ 0 \\ 1\ 3.\ 0 \\ 6.\ 8 \\ +\ 6.\ 8 \\ \hline \overset{1}{3}\ \overset{1}{9}.\ 6 \end{array}$$

I can add up all four sides of the rectangle to find the perimeter.

The perimeter of the rectangle is 39.6 meters.