

Section R.6: Problem Solving

Tuesday, January 15, 2019 2:00 PM

in general, word problems involve the same set of steps:

- ① read the question
- ② draw a diagram, if appropriate
- ③ figure out what you know and what you need to find
- ④ make a plan
- ⑤ calculate
- ⑥ check

examples: Kelsey is making cookies which she will give as gifts. She has made 34.5 pounds of cookies, which need to be divided up into equal packages of 0.75 pounds of cookies each. How many packages can she make?

have 34.5 pounds total
want 0.75 pounds per package

$$\frac{34.5}{0.75} = \frac{34.5}{75/100} = \frac{34.5}{3/4} = 34.5 \left(\frac{4}{3} \right)$$

$$\begin{array}{r} 2 \\ 34.5 \\ \underline{4} \\ 138.0 \end{array}$$

$$= \frac{138}{3}$$

$$= \boxed{46}$$

$$\frac{34.5}{0.75} \left(\frac{100}{100} \right) = \frac{3450}{75}$$

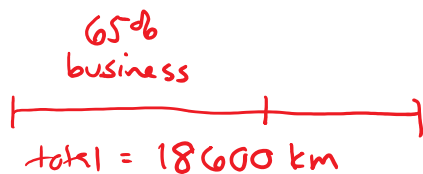
$$\begin{array}{r} 46 \\ 75 \overline{) 3450} \\ \underline{300} \\ 450 \\ \underline{450} \\ 0 \end{array}$$

$$\begin{array}{r} 75 \\ \underline{4} \\ 300 \end{array} \quad \begin{array}{r} 75 \\ \underline{5} \\ 375 \end{array}$$

Kelsey can make 46 packages.

Section R-6, cont'd :

example : Dominic is a traveling salesman who frequently drives between cities in BC. Last year, he drove a total of 18 600 kilometres and claimed 65% as business travel. How many kilometres did he travel on business last year?



65% of 18600

$$(0.65)(18600)$$

12090

$$\begin{array}{r} 43 \\ 186 \\ \underline{65} \\ 930 \\ + 1116 \\ \hline 12090 \end{array}$$

$$\text{or } (0.65)(18600)$$

$$\frac{65}{100} \times 18600$$

$$12090$$

Now, write a concluding sentence for this word problem.

Dominic traveled 12090 km.

↑
don't forget,
units!