

## G5-M2-Lesson 22

1. Divide. Then check using multiplication.

a.  $874 \div 41$ 

I look at the dividend of 874 and estimate  $80 \text{ tens} \div 40 = 2 \text{ tens}$ , or  $800 \div 40 = 20$ . I'll record 2 in the tens place. 5 tens remain.

$$\begin{array}{r} 2 \\ 41 \overline{) 874} \\ \underline{- 82} \phantom{0} \\ 5 \phantom{0} \end{array}$$

I look at 54 and estimate  $40 \text{ ones} \div 40 = 1 \text{ one}$ , or  $40 \div 40 = 1$ . I'll record 1 in the ones place. There's a remainder of 13.

$$\begin{array}{r} 21 \\ 41 \overline{) 874} \\ \underline{- 82} \phantom{0} \\ 54 \\ \underline{- 41} \phantom{0} \\ 13 \end{array}$$

5 tens plus 4 in the dividend makes 54.

The quotient is 21 with a remainder of 13.

Check:

I check my answer by multiplying the quotient and the divisor,  $21 \times 41$ , and then add the remainder of 13.

$$\begin{array}{r} 21 \\ \times 41 \\ \hline 21 \\ + 840 \\ \hline 861 \end{array}$$

$$\begin{array}{r} 861 \\ + 13 \\ \hline 874 \end{array}$$

After checking, I get 874, which does match the original dividend. So, I know I solved correctly.

b.  $703 \div 29$ 

I look at the dividend of 703 and estimate  $60 \text{ tens} \div 30 = 2 \text{ tens}$ , or  $600 \div 30 = 20$ . I'll record 2 in the tens place. There's a remainder of 12 tens.

$$\begin{array}{r} 2 \\ 29 \overline{) 703} \\ \underline{- 58} \phantom{0} \\ 12 \phantom{0} \end{array}$$

$$\begin{array}{r} 24 \\ 29 \overline{) 703} \\ \underline{- 58} \phantom{0} \\ 123 \\ \underline{- 116} \phantom{0} \\ 7 \end{array}$$

12 tens plus 3 in the dividend makes 123.

I can estimate.  $12 \text{ tens} \div 30 = 4 \text{ ones}$ , or  $120 \div 30 = 4$ . I'll record 4 in the ones place. 4 units of 29 is 116.

Check:

I check my answer by multiplying the quotient and the divisor, and then I add the remainder.

$$\begin{array}{r} 24 \\ \times 29 \\ \hline 216 \\ + 480 \\ \hline 696 \end{array}$$

$$\begin{array}{r} 696 \\ + 07 \\ \hline 703 \end{array}$$

2. 31 students are selling cupcakes. There are 167 cupcakes to be shared equally among students.
- a. How many cupcakes are left over after sharing them equally?

$$\begin{array}{r} 5 \text{ R } 12 \\ 31 \overline{) 167} \\ - 155 \\ \hline 12 \end{array}$$

167 cupcakes shared equally among 31 students: each student gets 5 cupcakes, with 12 cupcakes left over.

*There are 12 cupcakes left over after sharing them equally.*

- b. If each student needs 6 cupcakes to sell, how many more cupcakes are needed?

$$\begin{array}{r} 31 \\ \times 6 \\ \hline 186 \end{array}$$

Since each student needs 6 cupcakes, then 31 students will need a total of 186 cupcakes.

*19 more cupcakes are needed.*

$$\begin{array}{r} 716 \\ - 167 \\ \hline 549 \end{array}$$

The difference between 167 and 186 is 19.

My solution makes sense. The remainder of 12 cupcakes, in part (a), tells me that if there were 19 more cupcakes, there would be enough for each student to have 6 cupcakes.

$$12 + 19 = 31$$