G5-M2-Lesson 20

1. Divide. Then check with multiplication.

a. $48 \div 21$

I do a quick mental estimation to find the quotient.
$40 \div 20 = 2$

$$\begin{array}{r} 2 \quad R\,6 \\ 21\overline{)\,4\,8} \\ -\;4\,2 \\ \hline 6 \end{array}$$

The actual quotient is 2 with a remainder of 6.

Check:

$$\begin{array}{r} 2\,1 \\ \times\quad 2 \\ \hline 4\,2 \end{array} \qquad \begin{array}{r} 4\,2 \\ +\quad 6 \\ \hline 4\,8 \end{array}$$

I'll check my answer by multiplying the divisor and the quotient, 21×2. Then, I'll add the remainder of 6.

This 48 matches the original dividend in the problem, which means I divided correctly. The quotient is 2 with a remainder of 6.

b. $79 \div 38$

I do a quick mental estimation to find the quotient.
$80 \div 40 = 2$

$$\begin{array}{r} 2 \quad R\,3 \\ 38\overline{)\,7\,9} \\ -\;7\,6 \\ \hline 3 \end{array}$$

The actual quotient is 2 with a remainder of 3.

Check:

$$\begin{array}{r} 3\,8 \\ \times\quad 2 \\ \hline \not{7}\;6 \end{array} \qquad \begin{array}{r} 7\,6 \\ +\quad 3 \\ \hline 7\,9 \end{array}$$

After checking, I see that 79 does match the original dividend.

Area is equal to length times width. So, I can use the area divided by the length to find the width.

$A = l \times w$ and $A \div l = w$

2. A rectangular 95-square-foot vegetable garden has a length of 19 feet. What is the width of the vegetable garden?

$95 \div 19 = 5$

I'll do a quick mental estimation to help me solve.

$100 \div 20 = 5$

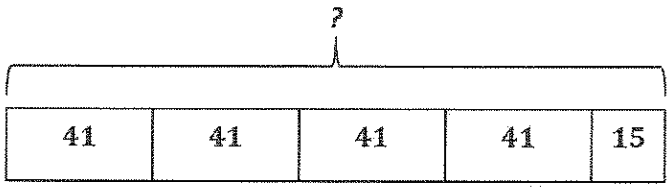
$$\begin{array}{r} 5 \\ 19\overline{)\,9\,5} \\ -\;9\,5 \\ \hline 0 \end{array}$$

The quotient of 5 means the width is 5 feet, with 0 feet remaining.

The width of the vegetable garden is 5 feet.

3. A number divided by 41 has a quotient of 4 with 15 as a remainder. Find the number.

In other words, 4 units of 41, plus 15 more, is equal to what number?



$$\begin{array}{r} 4 \;\; R\,15 \\ 41\overline{)\,?} \end{array}$$

I know I have to find the missing dividend.

I need to add 164 and the remainder of 15 to get a total of 179. The dividend is 179.

I can multiply the divisor of 41 and the quotient of 4 to get 164.

$$\begin{array}{r} 4\,1 \\ \times\quad 4 \\ \hline 1\,6\,4 \end{array} \qquad \begin{array}{r} 1\,6\,4 \\ +\quad 1\,5 \\ \hline 1\,7\,9 \end{array}$$

The number is 179.