Lesson 30: Dividing Numbers by Two Digits

**Purpose of lesson:** You will learn how to divide larger numbers by two-digit divisors.

There are four (4) basic steps to long division. 1) **Divide**  
2) **Multiply**  
3) **Subtract**  
4) **Bring Down**

Let's look at a few examples.

1. **Decide** where to put the first digit. 13 cannot be divided by 21, but 131 can, so we know that we will have a one digit answer.

   We think: (Divide $13 \div 2 = 6$, ) so, Place the 6 over the 1.

   $\begin{array}{c|c}
   21 & 131 \\
   \hline
   6 & \\
   \hline
   \end{array}$

2. **Multiply** $21 \times 6 = 126$

   $\begin{array}{c|c}
   21 & 131 \\
   \hline
   6 & 126 \\
   \hline
   \end{array}$

3. **Subtract** $131 - 126 = 5$

   $\begin{array}{c|c}
   21 & 131 \\
   \hline
   6 & 126 \\
   \hline
   - & 5 \\
   \hline
   \end{array}$

4. There is nothing to **Bring down**, so the **remainder** is 5

   $\begin{array}{c|c}
   21 & 131 \\
   \hline
   6 & \\
   \hline
   R5 & \\
   \hline
   \end{array}$

Let's try some of our own!

**Take Lesson 30 Quiz 1**

Sometimes your first estimate doesn't work and you need to try again.
We decided on a one digit answer, $16 \div 2 = 8$, so we tried $8$, but when we multiplied, the number was too big! We can’t subtract!

We can’t subtract!

So we tried $7$. $7 \times 23 = 161$

That works! There is no remainder!

Let’s try some more!

**Take Lesson 30 Quiz 2**