

Lesson 31: Dividing Greater Numbers

Purpose of lesson: We will divide larger numbers with a 2 digit divisor, resulting in 2 digit quotients.

We divide larger numbers in the same manner: **divide, multiply, subtract and bring down**. When we decide where to place our first digit we determine how many digits will be in the quotient.

$$\begin{array}{r} 1 \\ 21 \overline{)291} \end{array}$$

1. **Divide** since 29 can be divided by 21, we place the first digit above the 9.

We now know we will have a 2 digit quotient. $29 \div 21 = 1$

$$\begin{array}{r} 1 \\ 21 \overline{)291} \\ \underline{-21} \end{array}$$

2. **Multiply** $1 \times 21 = 21$

$$\begin{array}{r} 1 \\ 21 \overline{)291} \\ \underline{-21} \\ 8 \end{array}$$

3. **Subtract**. If the result is less than the divisor (yes! $8 < 21$) then you go to step 4

$$\begin{array}{r} 1 \\ 21 \overline{)291} \\ \underline{-21} \downarrow \\ 81 \end{array}$$

4. **Bring down** the 1 to form 81. Now repeat the process again,

$$\begin{array}{r} 3 \\ 21 \overline{)291} \\ \underline{-21} \\ 81 \\ \underline{-63} \\ 18 \end{array}$$

5. Divide, $81 \div 21 = 4$ (we think $8 \div 2 = 4$)
 Multiply $4 \times 21 = 84$ Oh , Oh, Too Big, try 3
 $3 \times 21 = 63$
 Subtract $81 - 63 = 18$

18 You are done, 18 is the remainder. $21 \overline{)291} \text{ R } 18$

Practice Problems.

Take Lesson 31 Quiz 1