

Divide by 1-Digit Numbers

Divide. $766 \div 6 = \blacksquare$

Step 1 Use place value to place the first digit.

Think: 7 hundreds can be shared among 6 groups without regrouping.

$$\begin{array}{r} 1 \\ 6 \overline{)766} \end{array} \quad \leftarrow \text{The first digit is in the hundreds place.}$$

Step 2 There is 1 hundred left over. Regroup 1 hundred, now there are 16 tens. Divide the tens.

$$\begin{array}{r} 1 \\ 6 \overline{)766} \\ - 6 \downarrow \\ 16 \end{array} \quad \leftarrow 16 \text{ tens}$$

$$\begin{array}{r} 12 \\ 6 \overline{)766} \\ - 6 \\ \hline 16 \\ - 12 \\ \hline 4 \end{array} \quad \begin{array}{l} \leftarrow \text{Divide 16 tens by 6.} \\ \leftarrow \text{Multiply. } 6 \times 2 \text{ tens} \\ \leftarrow \text{Subtract.} \end{array}$$

Step 3 There are 4 tens left over. Regroup 4 tens, now there are 46 ones. Divide the ones.

$$\begin{array}{r} 12 \\ 6 \overline{)766} \\ - 6 \\ \hline 16 \\ - 12 \\ \hline 46 \end{array} \quad \leftarrow 46 \text{ ones}$$

$$\begin{array}{r} 127 \\ 6 \overline{)766} \\ - 6 \\ \hline 16 \\ - 12 \\ \hline 46 \\ - 42 \\ \hline 4 \end{array} \quad \begin{array}{l} \leftarrow \text{Divide 46 ones by 6.} \\ \leftarrow \text{Multiply. } 6 \times 7 \text{ ones} \\ \leftarrow \text{Subtract.} \end{array}$$

Step 4 Check to make sure that the remainder is less than the divisor. Write the answer.

$$\begin{array}{r} 127 \text{ r}4 \\ 6 \overline{)766} \end{array} \quad 4 < 6$$

Step 5 Use multiplication and addition to check your answer.

$$\begin{array}{r} 127 \leftarrow \text{quotient} \\ \times 6 \leftarrow \text{divisor} \\ \hline 762 \\ + 4 \leftarrow \text{remainder} \\ \hline 766 \leftarrow \text{dividend} \end{array}$$

Divide and check.

1 $4 \overline{)868}$

2 $2 \overline{)657}$

3 $7 \overline{)8,743}$