

Troubleshooting Division

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Dividing Difficult Large Numbers

$$31 \overline{) 1719}$$

- **31 will not go into 1**
- **31 will not go into 17**
- **31 will go into 171**

Dividing Difficult Large Numbers

$$3 \blacksquare) \overline{171 \blacksquare 9}$$

To figure what your first number will be cover the 1 in 31 & the 1 in 171.

Dividing Difficult Large Numbers

$$3 \blacksquare \overline{) 17 \blacksquare 9}$$

**Now ask how many
3's will go into 17.**

Dividing Difficult Large Numbers

$$31 \overline{) 1719} \quad 5$$

Be sure to put that number directly above the 1 not the 7.

Dividing Difficult Large Numbers


$$31 \overline{) 1719}$$

**Now multiply the 5
x 31 and place it
under the 171.**

Dividing Difficult Large Numbers

$$\begin{array}{r} 31 \overline{) 1719} \\ \underline{151} \\ 209 \end{array}$$

31
x5

151

5

5

151

209

Dividing Difficult Large Numbers

5

$$\begin{array}{r} 3 \blacksquare) 1719 \\ \underline{151} \\ 209 \end{array}$$

**Now cover
up the 1 in 31
& the 9 in 209**

20 \blacksquare

Dividing Difficult Large Numbers

5

$$\begin{array}{r} 3 \square) 1719 \\ \underline{1511} \\ 20 \end{array}$$

Ask how many 3's will go into 20.

20 \square


Dividing Difficult Large Numbers

56

$$\begin{array}{r} 3 \blacksquare) 1719 \\ \underline{151} \\ 20 \blacksquare \end{array}$$

Place that number next to the 5 in your quotient.

Dividing Difficult Large Numbers

$$\begin{array}{r} 56 \\ \hline 31 \overline{) 1719} \\ \underline{-151} \\ 209 \end{array}$$


**Now multiply
31 x 6.**

$$209$$

Dividing Difficult Large Numbers

$$\begin{array}{r} 56 \\ \hline 31 \overline{) 1719} \\ \underline{-151} \\ 209 \\ \underline{-186} \\ 23 \end{array}$$

A red arrow points from the '5' in the quotient to the '5' in the dividend '1719'. Another red arrow points from the '186' in the multiplication result to the '186' in the dividend '1719'.

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

Dividing Difficult Large Numbers

$$\begin{array}{r} 56 \\ \hline 31 \overline{) 1719} \\ \underline{-151} \downarrow \\ 209 \\ \underline{-186} \\ 23 \end{array}$$

**Subtract &
your answer
is 56 R23**