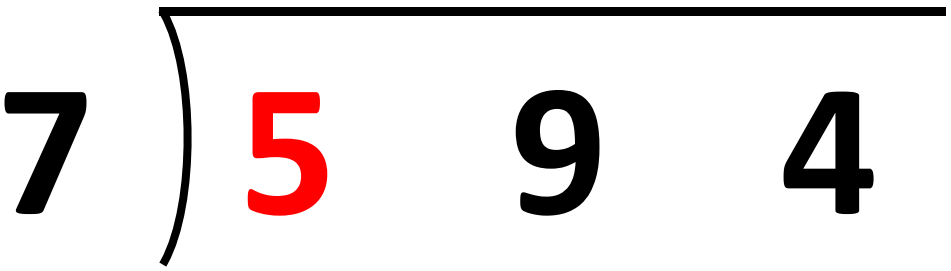
Written Division
‘Bus Stop’ Method

594 ÷ 7

We set the sum out like this:

Step 1

How many 7s will go into 5?

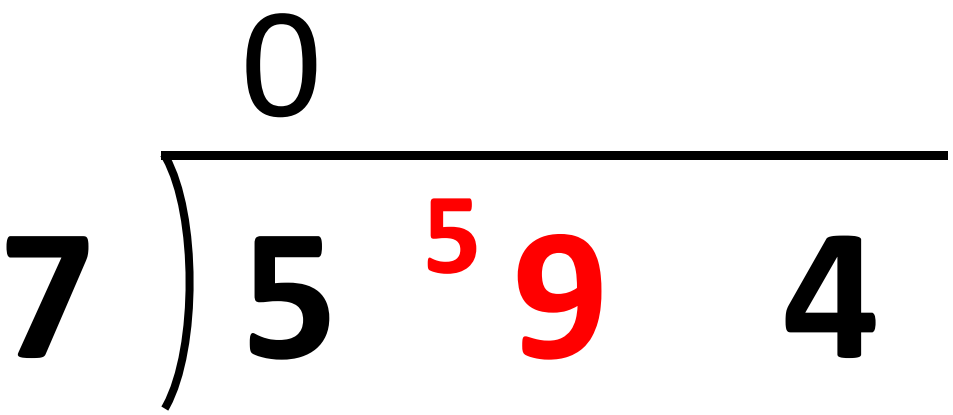


Answer: 0 remainder 5

Step 2

Carry the remainder 5 into the next column

How many 7s will go into 59?



Answer: 8 remainder 3

Step 3

Carry the remainder 3 into the next column

How many 7s will go into 34?

$$7\overline{)\,5^{5}\,9^{3}\,4}\qquad 0\quad 8$$

Answer: 4 remainder 6

Step 4

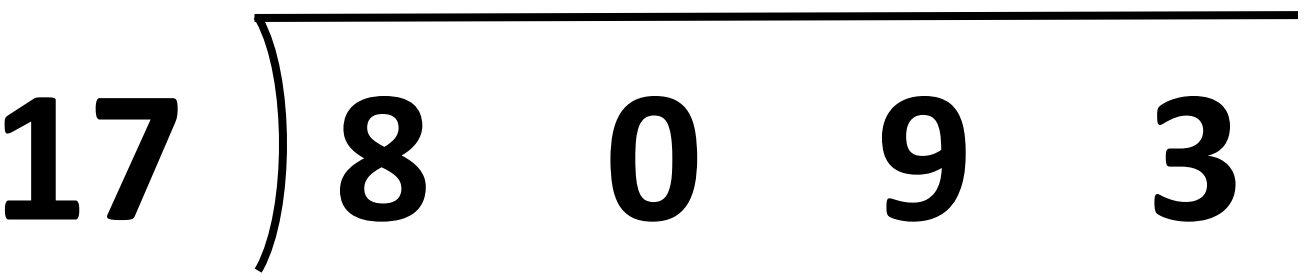
The answer is 84 remainder 6

$$\begin{array}{r} 0\ \ 8\ \ 4 \\ \hline 7\overline{)\,5\ {}^{5}9\ {}^{3}4} \end{array} \quad r6$$

Which can now be written as $84\frac{6}{7}$

8093 ÷ 17

Now we will look at dividing by larger numbers.



Step 1

We encourage pupils to jot down the first 5 numbers of the 17 times table.

How many 17s go into 8?

$$17 \overline{)\,8\;\;0\;\;9\;\;3}$$

17
34
51
68
85

Answer: 0 remainder 8

Step 2

How many 17s go into 80?

$$
\begin{array}{r}
0 \\
\hline
17\,)\,8\,{}^{8}0\,\,9\,\,3
\end{array}
$$

17
34
51
68
85

Answer: Closest we can get is 4 x 17 = 68
so 4 remainder 12

Step 3

How many 17s go into 129?

We need to extend the 17 times table a few more times

$$\begin{array}{r} 0\ \ 4 \\ \hline 17 \overline{)\ 8\ {}^{8}0\ {}^{12}9\ \ 3} \end{array}$$

17
34
51
68
85
102
119

Answer: Closest we can get is 7 x 17 = 119
so 7 remainder 10

Step 4

How many 17s go into 103?

$$
\begin{array}{r}
0\ \ 4\ \ 7 \\
17\overline{)\,8\ {}^{8}0\ {}^{12}9\ {}^{10}3}
\end{array}
$$

17
34
51
68
85
102
119

Answer: Closest we can get is 6 x 17 = 102
so 6 remainder 1

Step 5

The answer is 476 remainder 1

$$17\overline{)8^{8}0^{12}9^{10}3} \quad 0\ 4\ 7\ 6\ \text{r}1$$

17
34
51
68
85
102
119

Which can now be written as $476\frac{1}{17}$