

DIVISION

(Short Division without remainder)

Short division is a method of division usually used for division when the divisor is a single digit number or may be a double digit if you know the table of that number very well as more work has to be done **mentally** in short division. It is very quick and used for simple division problems.

Short division can be done by following easy steps.

For example:

$$84 \div 6$$

1. Write the divisor and the dividend in the division sign.

$$6 \overline{) 84}$$

2. Divide the first digit of the dividend by the divisor. If the divisor is larger than the first digit of the dividend, then try the first two digits. Here, 6 goes into 8 one time i.e. $6 \div 1 = 1$ write 1 over 8 in the quotient area.

$$6 \overline{) 84} \begin{array}{c} 1 \\ \hline \end{array}$$

Now 6×1 gives us 6 and after subtracting 6 from 8, we have a remainder 2.

Write 2 on the top left corner of the next digit which is 7 here.

$$6 \overline{) 84} \begin{array}{c} 1 \\ \hline 2 \end{array}$$

3. Now repeat the step 2 for the next digit which is 27 (the remainder 2 and the 2nd digit of dividend 7 makes 27)

$$6 \overline{) 84} \begin{array}{c} 1 \ 4 \\ \hline 2 \ 7 \end{array}$$

6 goes into 24 four times. Write 4 above 24.

Multiply: $6 \times 4 = 24$. Subtract: $24 - 24 = 0$.

Since there is no more digit of the dividend left,

We are done!

$$84 \div 6 = 14$$

Repeat the process if you have a larger digit number.