

Written Methods for Maths; A guide for Parents and Carers



In this pack, you will find the 4 written methods which the children use for addition, subtraction, multiplication and division. Hopefully, you will find this useful in guiding the children through any issues they may have.

Column Addition

For addition we use the column method by adding from the right then working along.

$$\begin{array}{r} 316.5 \\ + 532.6 \\ \hline \end{array}$$

The diagram shows the first step of column addition. A blue arrow points from the text "adding from the right" to the decimal point. Another blue arrow points from the text "then working along" to the first column (tenths). The result of the addition in the first column is 1.1, with the 1 written below the decimal point and the 1 written below the 1 in the tenths place.

$$\begin{array}{r} 316.5 \\ + 532.6 \\ \hline \end{array}$$

$$\begin{array}{r} 316.5 \\ + 532.6 \\ \hline \end{array}$$

Don't forget to add in any units, tens, etc. that you have carried up.

Column Subtraction

For subtraction we use the column method by subtracting from the right then working along.

$$\begin{array}{r} 8 \overset{3}{\cancel{4}} 6 \\ - 3 1 8 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 8 \overset{3}{\cancel{4}} 6 \\ - 3 1 8 \\ \hline 8 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \overset{3}{\cancel{4}} 6 \\ - 3 1 8 \\ \hline 5 2 8 \\ \hline \end{array}$$

6 - 8 is a bit tricky so we go to the next column and 'borrow' a bit to make it easier.

Column Multiplication

For multiplication, we use the column method for multiplication.

We multiply the units of the top number by the units of the bottom number, then the tens of the top by the units of the bottom number and so on.

$$\begin{array}{r} 846 \\ \times \quad 36 \\ \hline \quad 6 \\ \hline \end{array}$$

$6 \times 6 = 36$. Write a 6 but carry the 3 up.

$$\begin{array}{r} 846 \\ \times \quad 236 \\ \hline \quad 76 \\ \hline \end{array}$$

$4 \times 6 = 24$, $24 + 3 = 27$. Write a 7 and carry the 2 up.

$$\begin{array}{r} 846 \\ \times \quad 236 \\ \hline 5076 \\ \hline \end{array}$$

$8 \times 6 = 48$, $48 + 2 = 50$. Write all the 50 in to finish it.

It still works for 2- and 3-digit numbers. We just have to work through carefully. Multiply the **top number** by the **units of the bottom number** 1st, then put a **place holder** in the units column on the 2nd line, then multiply the top number by the **tens of the 2nd number**. Then add up the 2 numbers you've just made to find the **answer**.

$$\begin{array}{r}
 846 \\
 \times 36 \\
 \hline
 5076 \\
 \hline
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 846 \\
 \times 36 \\
 \hline
 5076 \\
 \hline
 0 \\
 \hline
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 846 \\
 \times 36 \\
 \hline
 5076 \\
 25380 \\
 \hline
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 846 \\
 \times 36 \\
 \hline
 5076 \\
 25380 \\
 \hline
 30456 \\
 \hline
 1 \quad 1
 \end{array}$$

It still works for decimals, it just gets a little more confusing and awkward when deciding how to get the place value right! (This just combines with the first example to work out 846×6.7)

$$\begin{array}{r}
 846 \\
 \times 0.7 \\
 \hline
 2 \\
 \hline
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 846 \\
 \times 0.7 \\
 \hline
 2 \\
 \hline
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 846 \\
 \times 0.7 \\
 \hline
 592.2 \\
 \hline
 \hline
 \hline
 \end{array}$$

Bus Stop Method

For division, try using the bus stop method. This is the only calculation where you start from the left when you are working it out!

So, for $63903 \div 3$, do it like this:

$$\begin{array}{r} 2 \\ 3 \overline{) 63903} \end{array}$$

$$\begin{array}{r} 21 \\ 3 \overline{) 63903} \end{array}$$

$$\begin{array}{r} 21301 \\ 3 \overline{) 63903} \end{array}$$

54,352 ÷ 4 works too, even though you end up with remainders through the working out...

$$\begin{array}{r} 13588 \\ 4 \overline{) 54352} \end{array}$$

You just need to pass on any little remainders onto the next number to make the next number.

It still works for decimals, you just have to keep passing on any remainders on to the next digit to the right.

$$\begin{array}{r} 2130 \\ 3 \overline{) 6391} \\ \underline{6391} \\ \text{remainder } 1 \end{array}$$

Year 6 can't leave 'remainders' anymore!

$$\begin{array}{r} 2130 \\ 3 \overline{) 6391.000} \end{array}$$

All numbers can have as many zeros after the decimal point as we want to help us with our calculations.

$$\begin{array}{r} 2130.333 \\ 3 \overline{) 6391.^10^10^10} \end{array}$$

This is what we call a 'recurring' decimal. After 3 digits, the children should recognise that it will carry on forever; Don't keep going, just stop!