

Written
Subtraction

Written Subtraction

$$\begin{array}{r} 80,134 \\ - 33,241 \\ \hline 46,893 \end{array}$$

↓

$$\begin{array}{r} 80,134 \\ - 33,241 \\ \hline 46,893 \end{array}$$

↑

$$\begin{array}{r} 80,134 \\ - 33,241 \\ \hline 46,893 \end{array}$$

**Written
Addition**

You always start the calculations with the column on the right (the ones column).

Written Addition

$$\begin{array}{r}
 45,853 \\
 + 23,463 \\
 \hline
 6
 \end{array}$$

↓

$$\begin{array}{r}
 45,853 \\
 + 23,463 \\
 \hline
 16
 \end{array}$$

↓

$$\begin{array}{r}
 45,853 \\
 + 23,463 \\
 \hline
 69,316
 \end{array}$$

Vocabulary for Subtraction

Subtract

Takeaway

Minus

Fewer

Difference

Half

Less

Short Division

1 How many 8s in 8?
8 $\overline{)8.192}$ $8 \div 8 = 1$

$$\begin{array}{r} 1,0 \\ 8 \overline{) 8,192} \end{array}$$

How many 8s in 1?
 $1 \div 8 = 0 \text{ r}1$

$$\begin{array}{r} 1,02 \\ 8 \overline{)8,192} \end{array}$$

How many 8s in 19? $19 \div 8 = 2 \text{ r}3$

Vocabulary for Division

Division

Dividing, Divide, Divided by

Left, left over, remainder

Grouping

Sharing, share, share equally

Group in, threes...tens...

Long Multiplication

Written
Multiplication

Written Multiplication

Step 1:
$$\begin{array}{r} 5,853 \\ \times 23 \\ \hline \end{array}$$

Step 2:
$$\begin{array}{r} 5,853 \\ \times 23 \\ \hline 9 \end{array}$$

Step 3:
$$\begin{array}{r} 5,853 \\ \times 23 \\ \hline 59 \end{array}$$

Step 4:
$$\begin{array}{r} 5,853 \\ \times 23 \\ \hline 5,59 \end{array}$$

Step 5:
$$\begin{array}{r} 5,853 \\ \times 23 \\ \hline 17,559 \end{array}$$

Step 6:
$$\begin{array}{r} 5,853 \\ \times 23 \\ \hline 17,559 \\ 60 \end{array}$$

Final result:
$$\begin{array}{r} 5,853 \\ \times 23 \\ \hline 17,559 \\ 117,060 \\ \hline 134,619 \end{array}$$