

# Division

Children may need to refer 'back' to previous years' recording at any time, particularly when decimals or larger numbers are introduced.  
Children to use practical apparatus, number lines and hundred squares for support

Year Group: 5

## Signs and Symbols

Know all multiplication facts to 10 x 10 and related division facts

$$\frac{63}{7} = \square \quad 56 \div 8 = \square \quad \square \div 9 = 8$$

$$172 \div 4 = \square \quad \frac{54}{\square} = 18 \quad \square \div 21 = 90$$

## Pencil and Paper Procedures

Chunking (using multiples of the divisor)

$$\begin{array}{r} 977 \div 36 \quad 977 \\ - 360 \quad (36 \times 10) \\ \hline 617 \\ - 360 \quad (36 \times 10) \\ \hline 257 \\ - 180 \quad (36 \times 5) \\ \hline 77 \\ - 72 \quad (36 \times 2) \\ \hline 5 \end{array}$$

$$\begin{array}{r} 87.5 \div 7 \quad 87.5 \\ - 70.0 \quad (7 \times 10) \\ \hline 17.5 \\ - 14.0 \quad (7 \times 2) \\ \hline 3.5 \\ - 3.5 \quad (7 \times 0.5) \\ \hline 0.0 \end{array}$$

Answer: 12.5

Answer: 27

Leading to Short division – with remainders

$$\begin{array}{r} 45 \text{ r } 1 \\ 11 \overline{)49} \end{array}$$

$$\begin{array}{r} 4.5 \text{ r } 1 \\ 11 \overline{)49.5} \end{array}$$

## Other Jottings

As Year 4 but with larger numbers

## Explaining (Verbally and in Writing)

**109 ÷ 21**

$21 \times 5 = 105$ , plus 4 more is 109. Answer = 5

Example of rounding down

I have saved £240. A train ticket to Durham is £52.  $240 \div 52 = 4.615384$  on my calculator. I can buy only 4 tickets.

**1/8 of 424**

$\frac{1}{2}$  of 424 is 212, and  $\frac{1}{2}$  of 212 is 106, and  $\frac{1}{2}$  of 106 is 53, so  $\frac{1}{8}$  of 424 is 53.

Example of rounding up

There are 240 people. One bus holds 52 people. 5 buses are needed to hold them all.