

Division

Children's recordings are the expectations for the end of Year 4
Children to use practical apparatus, number lines and hundred squares for support

Year Group: 4

Signs and Symbols

Know 2, 3, 4, 5 and 10 times table and derive related division facts

$$36 \div 4 = \square \quad 60 \div \square = 6 \quad \square \div 3 = 7$$

$$320 \div 4 = \square \quad 240 \div \square = 60 \quad \square \div 30 = 8 \quad (25 \div \square) + 2 = 7 \quad (\square \div 5) - 2 = 3$$

Progressing to:

$$1456 \div 4 = \square \quad 64 \div 4 = 8 \times \square$$

Pencil and Paper Procedures

Chunking (using multiples of the divisor)

TU \div U

$$\begin{array}{r} 72 \div 5 \quad 72 \\ - \underline{50} \quad (5 \times 10) \\ \quad 22 \\ - \underline{20} \quad (5 \times 4) \\ \quad \quad 2 \end{array}$$

Answer: 14 remainder 2

Extend to dividing three digit numbers by a single, then double digit number.

Number lines could also be used for repeated addition or subtraction calculations.

$$96 \div 4$$

$$\begin{array}{r} - 96 \\ \underline{40} \quad (4 \times 10) \\ - 56 \\ \underline{40} \quad (4 \times 10) \\ - 16 \\ \underline{16} \quad (4 \times 4) \\ \quad \quad 0 \end{array}$$

Answer: 24

Other Jottings

$$\begin{aligned} 72 \div 5 &= (50 + 22) \div 5 \\ &= 10 + 4 \text{ r } 2 \\ &\text{or } 14 \text{ r } 2 \end{aligned}$$

Explaining (Verbally)

▪ $87 \div 2$

Half of 80 is 40 and half of 7 is 3.5 so it was 43.5.

Rounding Down

▪ I have £33. Tickets cost £4. How many tickets can I buy?

Answer: *I can buy only 8 tickets because $\pounds 4 \times 8 = \pounds 32$.*

Rounding Up

▪ I have 33 cakes. 1 box holds 4 cakes. How many boxes will I need?

Answer: *9 because 8×4 is 32 and I need another box.*

Decimals

▪ What is 23 divided by 10?

Answer: *Twenty three divided by ten equals two and three tenths.*