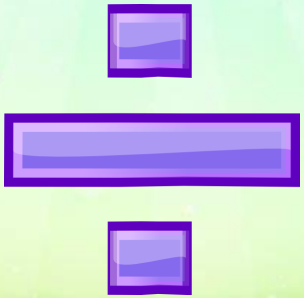
Walter Infant School and Nursery

To be the best I can be

Respect Empathy Kindness Honesty Resilience

Key Stage One Calculation Methods

Division



Division Vocabulary

- divide
- divided by
- divided into
- share
- share equally
- groups of
- equal groups of

Counting patterns

0 2 4 6 8 10 12 14 16 18 20

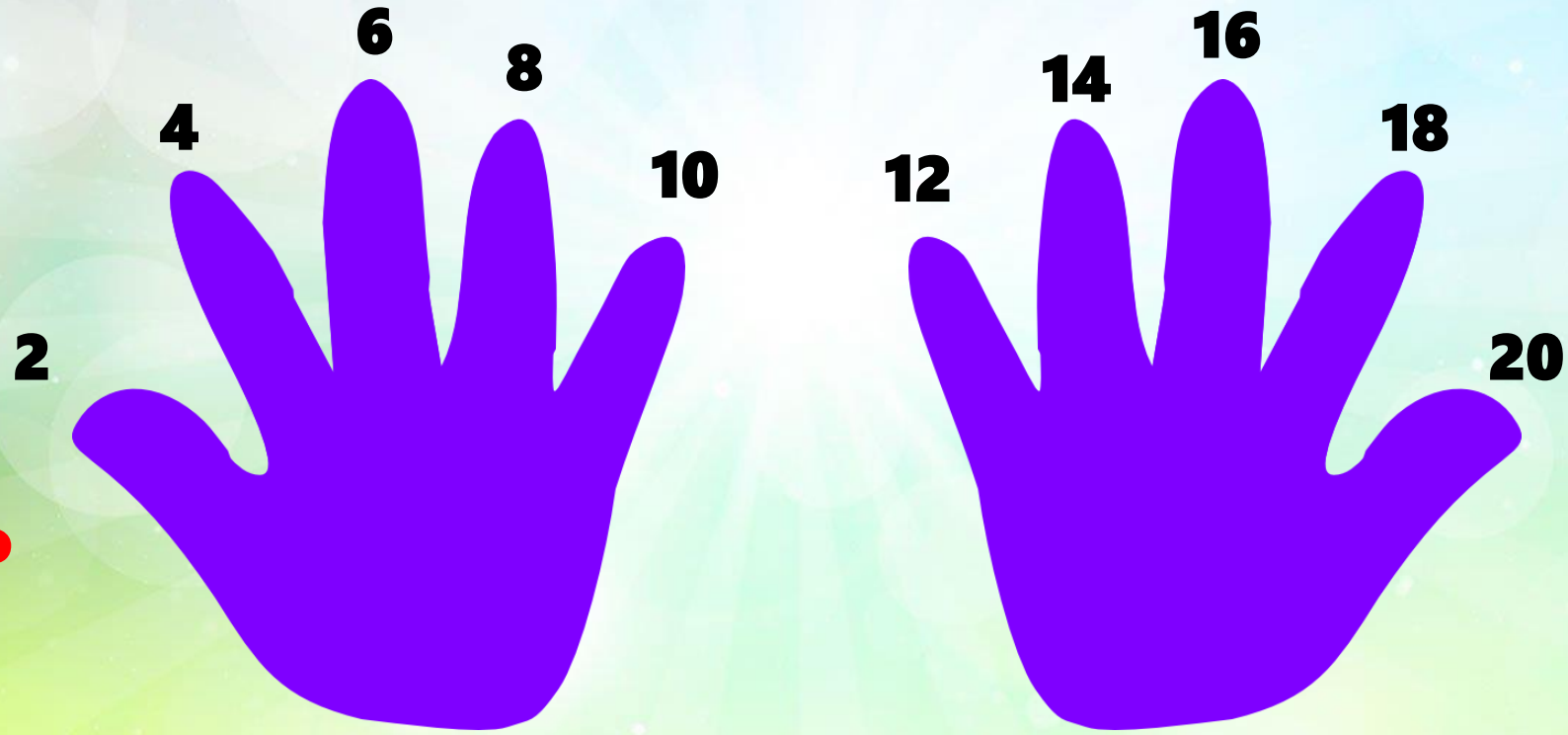
0 3 6 9 12 15 18 21 24 27 30

0 5 10 15 20 25 30 35 40 45 50

0 10 20 30 40 50 60 70 80 90 100

We practise counting in 2s, 3s, 5s and 10s forwards and backward regularly. This helps with multiplication and division. We always start on 0 (zero).

Counting patterns using fingers



We count in 2s, 3s, 5s and 10s using our fingers forwards and backwards (we always start with zero).

Counting coins

12p ÷ 2p = 6

35p ÷ 5p = 7

40p ÷ 10p = 4

We might divide and count using coins.
How many 2 pence coins make 12p?

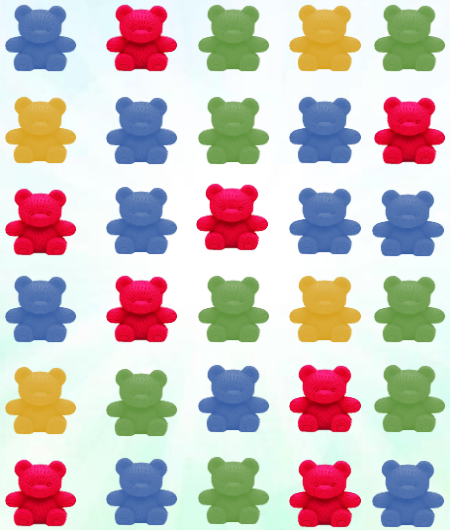
Counting objects in groups

$30 \div 6 = 5$

We share and group objects for division.

Sorting objects into arrays

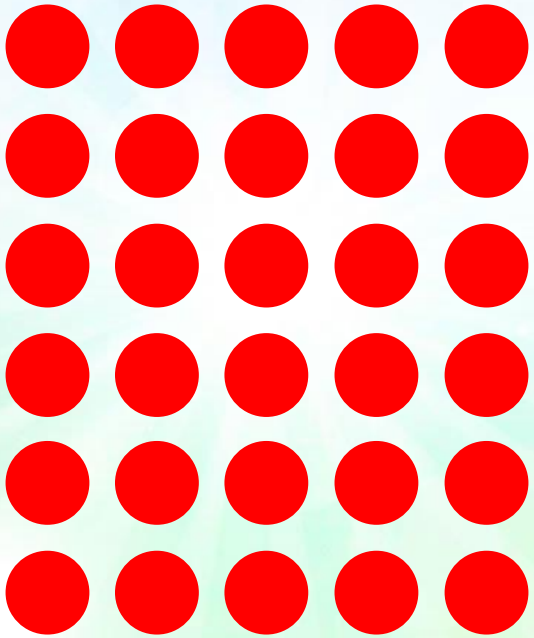
30 ÷ 5 = 6



We group objects in a more structured way. The first number (30) tells us how many we need altogether and the second number tells us how many need to be in each row (5). Count the number of columns (6).

Drawing arrays

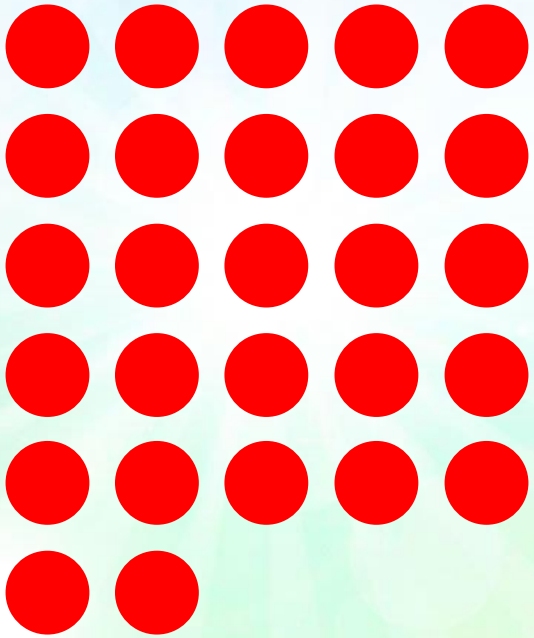
30 ÷ 5 = 6



We draw the arrays in our books. The first number (30) tells us how many we need altogether and the second number tells us how many need to be in each row (5). Count the number of columns (6).

Drawing arrays

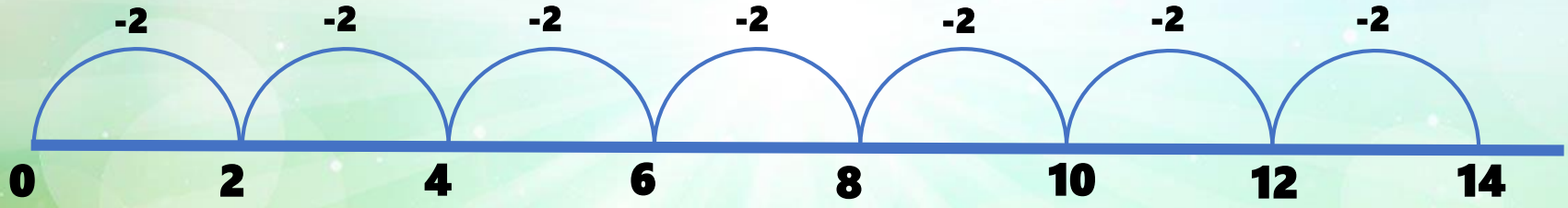
27 ÷ 5 = 5 r2



We can also use arrays to divide numbers and find remainders. These are numbers that do not divide wholly. In the example above 27 divide into 5 is 5 with a remainder of 2. The array makes this very visual and easier to see.

Repeated subtraction using a number line

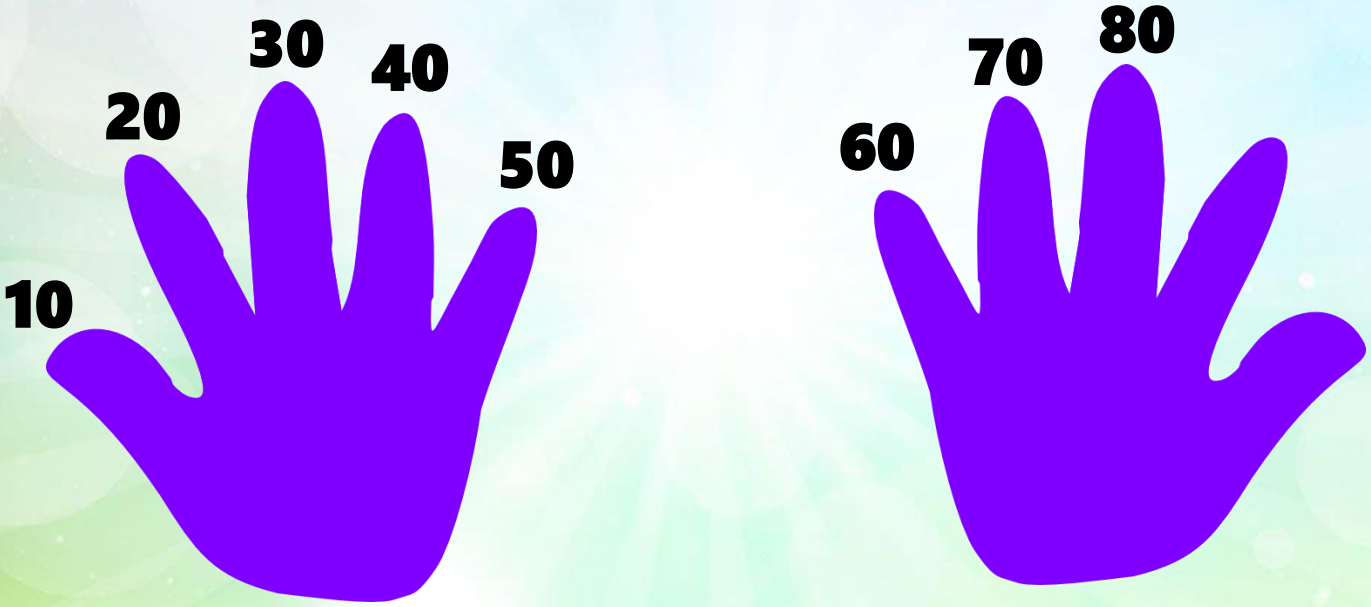
14 ÷ 2 = 7



Draw an empty number line starting from the first number (14). Keep jumping backwards in jumps of the second number (2) until you get to zero. In the example above there are 7 jumps of -2 repeated.

Dividing using fingers

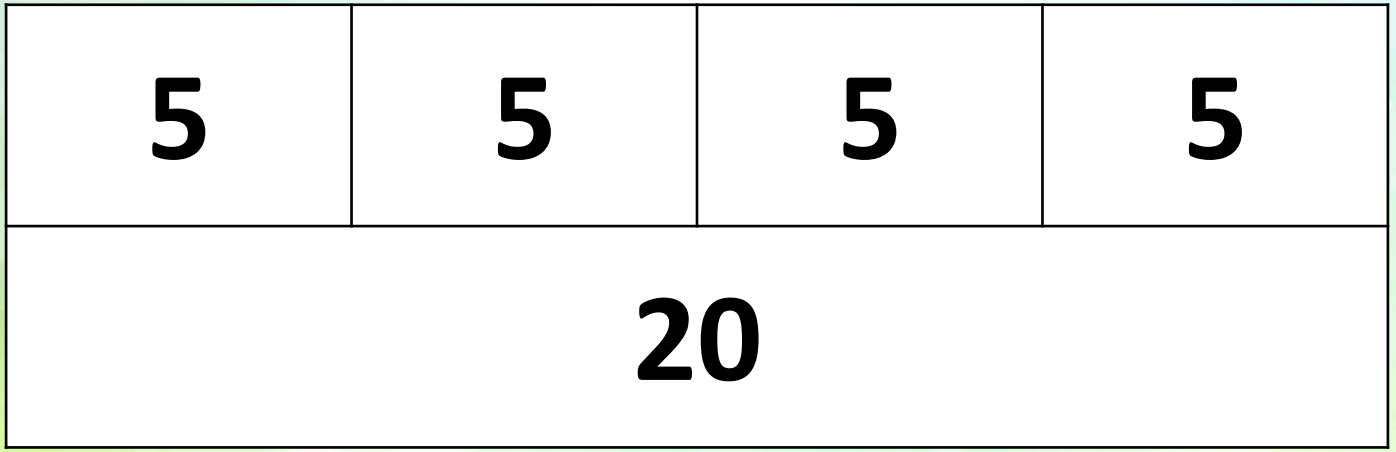
80 ÷ 10 = 8



Using fingers count to the first number in the calculation (80), the second number tells you the counting pattern (10s) and the number of fingers up is the answer (8).

Commutativity and bar modelling

20 ÷ 5 = 4



We can use bar modelling to show repeated subtraction.