

Stage Two

Addition

+ and = signs and numbers

Continue using a range of equations as in Year 1 but with appropriate, larger numbers.

Extend to

$$14 + 5 = 10 + \square$$

and adding three numbers

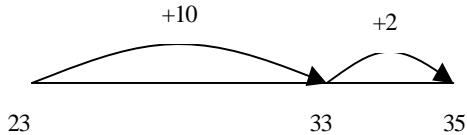
$$32 + \square + \square = 100 \quad 35 = 1 + \square + 5$$

Partition into tens and ones and recombine

$$\begin{aligned} 12 + 23 &= 10 + 2 + 20 + 3 \\ &= 10 + 20 + 2 + 3 \\ &= 30 + 5 \\ &= 35 \end{aligned}$$

Refine by beginning with the most significant number and partitioning only the second number:

$$\begin{aligned} 23 + 12 &= 23 + 10 + 2 \\ &= 33 + 2 \\ &= 35 \end{aligned}$$

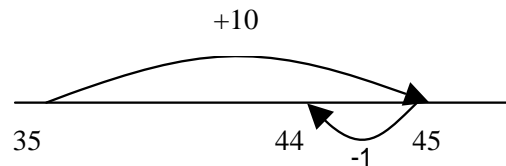


more able

$$\begin{aligned} 43 + 36 \\ 40 + 30 &= 70 \\ 3 + 6 &= 9 \\ &= 79 \end{aligned}$$

Add 9 or 11 by adding 10 and adjusting by 1

$$35 + 9 = 44$$



Subtraction

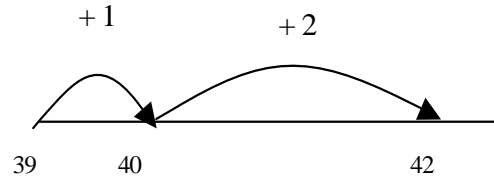
- and = signs and missing numbers

Continue using a range of equations as in Year 1 but with appropriate numbers.

Extend to $14 + 5 = 20 - \square$

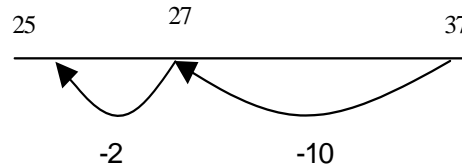
Find a small difference by counting up

$$42 - 39 = 3$$



Use known number facts and place value to subtract (partition second number only)

$$\begin{aligned} 37 - 12 &= 37 - 10 - 2 \\ &= 27 - 2 \\ &= 25 \end{aligned}$$

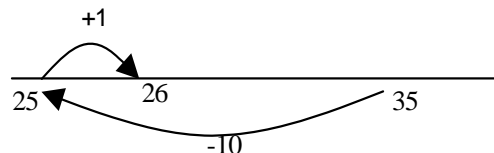


more able

$$\begin{aligned} 57 - 34 \\ 50 - 30 &= 20 \\ 7 - 4 &= 3 \\ &= 23 \end{aligned}$$

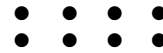
Subtract 9 or 11. Begin to add/subtract 19 or 21

$$35 - 9 = 26$$



Multiplication

Arrays and repeated addition

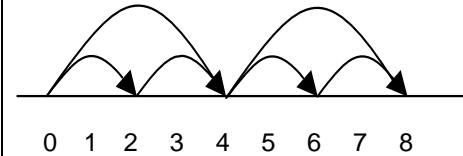


$$2 \times 4$$

$$4 \times 2$$

or repeated addition

$$\begin{aligned} 4 + 4 \\ 2 + 2 + 2 + 2 \end{aligned}$$



x and = signs and missing numbers

$$\begin{aligned} 7 \times 2 &= \square & \square &= 2 \times 7 \\ 7 \times \square &= 14 & 14 &= \square \times 7 \\ \square \times 2 &= 14 & 14 &= 2 \times \square \\ \square \times \nabla &= 14 & 14 &= \square \times \nabla \end{aligned}$$

Doubling multiples of 5 up to 50

$$15 \times 2 = 30$$

Partition

$$\begin{aligned} 15 \times 2 \\ 20 + 10 &= 30 \end{aligned}$$

or

x	10	5
2	20	10

2, 5 and 10 multiplication tables

Division

Understand division as sharing and grouping

Sharing – 6 sweets are shared between 2 people. How many do they have each?



÷ and = signs and missing numbers

$$\begin{aligned} 6 \div 2 &= \square & \square &= 6 \div 2 \\ 6 \div \square &= 3 & 3 &= 6 \div \square \\ \square \div 2 &= 3 & 3 &= \square \div 2 \\ \square \div \nabla &= 3 & 3 &= \square \div \nabla \end{aligned}$$

$6 \div 2$ can be modelled as:

Grouping – There are 6 sweets. How many people can have 2 each? (How many 2's make 6?)

