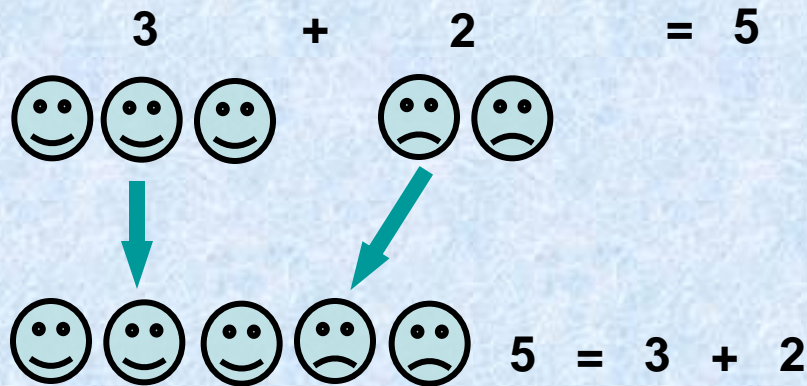


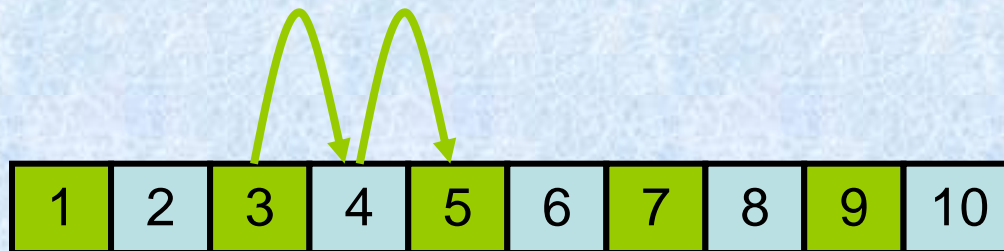
# Addition methods

# Addition - Reception



1. Record the outcome when two groups of objects are combined into one group

2. Record the outcome of physically moving along the number track



“Standing on 3 and moving forwards two spaces”

# Addition – Year 1



5 and 1 **more** is ?

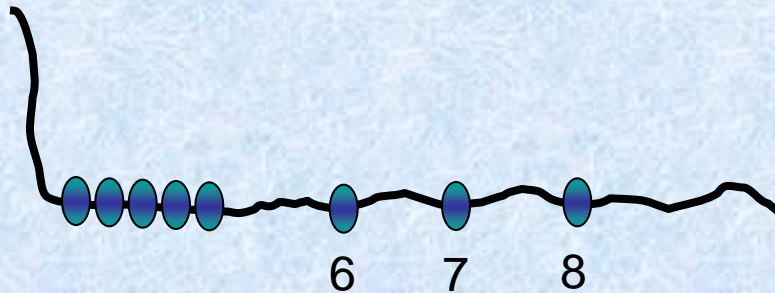
6

5 and 2 **more** is ?

6, 7

5 and 3 **more** is ?

6, 7, 8



1. **Combining sets to make a total**

2. **Counting along a number track, then number line in 1s and 10s**

3. **Number bonds to 10**

4. **Number bonds to 5, 6, 7, 8, 9**



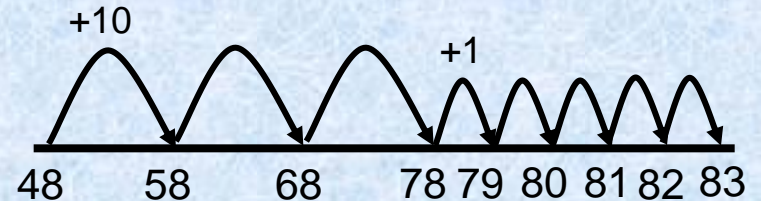
Count on one, two, three

# Addition – Year 2

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

1. Counting on in 10s then 1s on a number square and number line

$$48 + 35 =$$



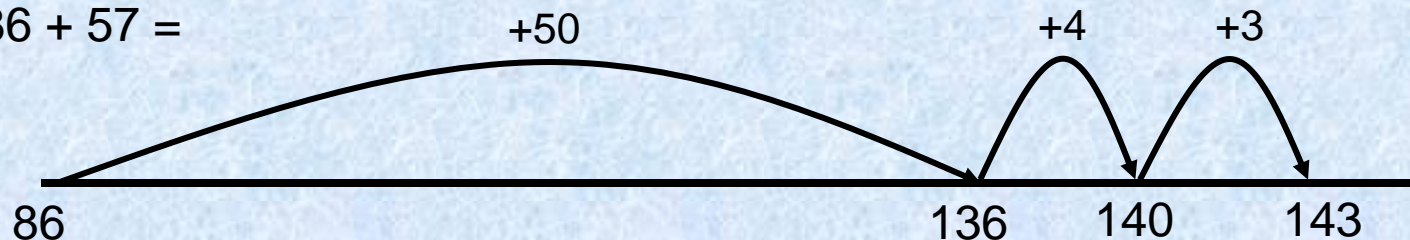
2. Number bonds to 10 and 20
3. Number bonds to 11, 12, 13, 14, 15, 16, 17, 18 and 19

# Addition – Year 3

## 1. Use a number line

Start from the largest number, partition the second and add the most significant digit first

$$86 + 57 =$$



## 2. Partition both numbers and add the tens, then the units, finally recombining

$$86 + 57 = (80 + 50) + (6 + 7)$$

$$= 130 + 13$$

$$= 143$$

## 3. Expanded vertical layout, adding the tens first

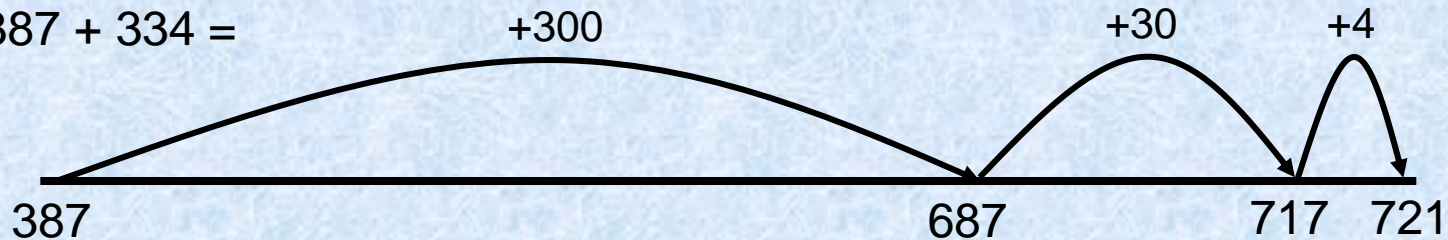
$$\begin{array}{r} 86 \\ + 57 \\ \hline 130 \quad (80 + 50) \\ 13 \quad (6 + 7) \\ \hline 143 \end{array}$$



# Addition – Year 4

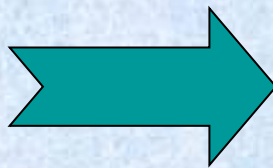
1. Use a number line, partitioning and adding the hundreds first

$$387 + 334 =$$



2. Expanded vertical layout, adding the hundreds first

$$\begin{array}{r}
 387 \\
 + 334 \\
 \hline
 600 \\
 110 \\
 11 \\
 \hline
 721 \\
 \hline
 \end{array}$$



3. Leading to expanded vertical layout adding the units first

$$\begin{array}{r}
 387 \\
 + 334 \\
 \hline
 11 \\
 110 \\
 600 \\
 \hline
 721 \\
 \hline
 \end{array}$$

# Addition – Year 5

$$\begin{array}{r} 1731 \\ + 629 \\ \hline 10 \\ 50 \\ 1300 \\ 1000 \\ \hline 2360 \\ \hline \end{array}$$

1. Expanded vertical layout, adding the units first

2. Leading to compact vertical method with carrying figures below the line

3. Compact vertical calculations with two and then several numbers and decimals in a money context (Go back to expanded layout if necessary)

Remember to still give the digits their correct place value names

eg  $700 + 600 = 1300$

$$\begin{array}{r} 1731 \\ + 629 \\ \hline 2360 \\ \hline 1 \quad 1 \end{array}$$

$$\begin{array}{r} £6.72 \\ £8.56 \\ + £2.30 \\ \hline £17.58 \\ \hline 1 \quad 1 \end{array}$$

# Addition – Year 6

## 1. Compact vertical layout

$$\begin{array}{r} 7648 \\ + 2486 \\ \hline 10134 \\ \hline 1111 \end{array}$$

## 2. Compact vertical layout with decimals requiring zero placeholders to be inserted

$$\begin{array}{r} 124.90 \\ + 7.25 \\ \hline 132.15 \\ \hline 11 \end{array}$$

When returning to a written calculation at this stage, e.g. to revise or to extend to decimals or to numbers with more digits, it is a good idea to start again with informal, expanded methods. This helps to retain their understanding of the link between different methods and makes it easier for them to resort to the expanded method if they need to.