


Calculation Methods

A visual break-down of strategies used to support children in calculation.

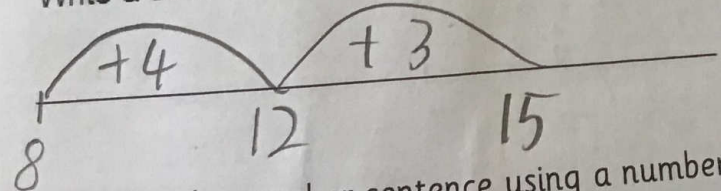
Addition using a number line challenge 2:

Ben has 4 red cars,
8 green cars and
3 yellow cars.

$4 + 8 + 3 = 15$



Write a sum to work out how many cars he has altogether.



Now, solve the number sentence using a numberline.

Addition



Partitioning

- Step 1 – Partition the two numbers into tens and ones.
- Step 2 – Add the tens
- Step 3 – Add the ones
- Step 4 – Recombine (add the two answers together)

5. $53 + 12 = 65$ ✓
50 3 10 2
 $50 + 10 = 60$
 $3 + 2 = 5$
 $60 + 5 = 65$

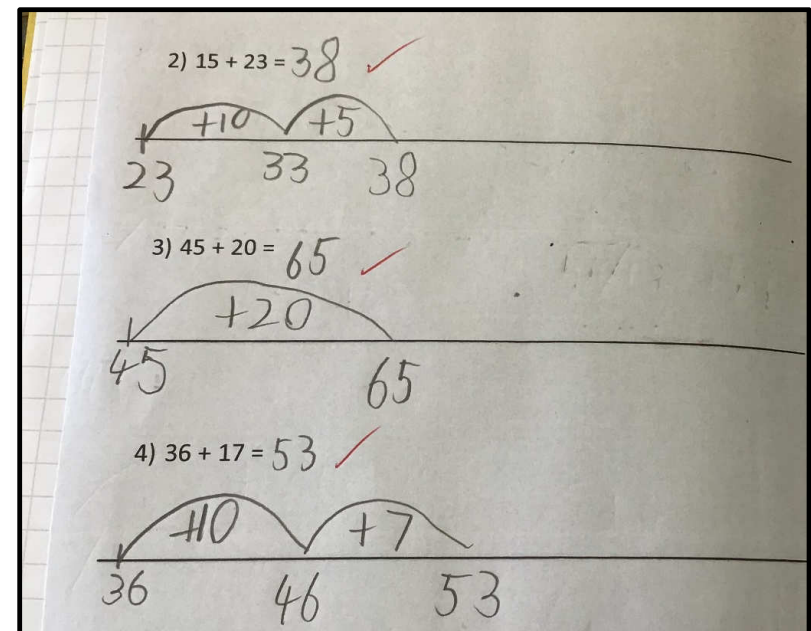
6. $45 + 37 = 82$ ✓
40 5 30 7
 $40 + 30 = 70$
 $5 + 7 = 12$
 $70 + 12 = 82$

$$\begin{array}{r} 68 \\ \text{60} \quad \text{8} \\ + \quad \begin{array}{r} 23 \\ \text{20} \quad \text{3} \end{array} \\ \hline 91 \end{array}$$

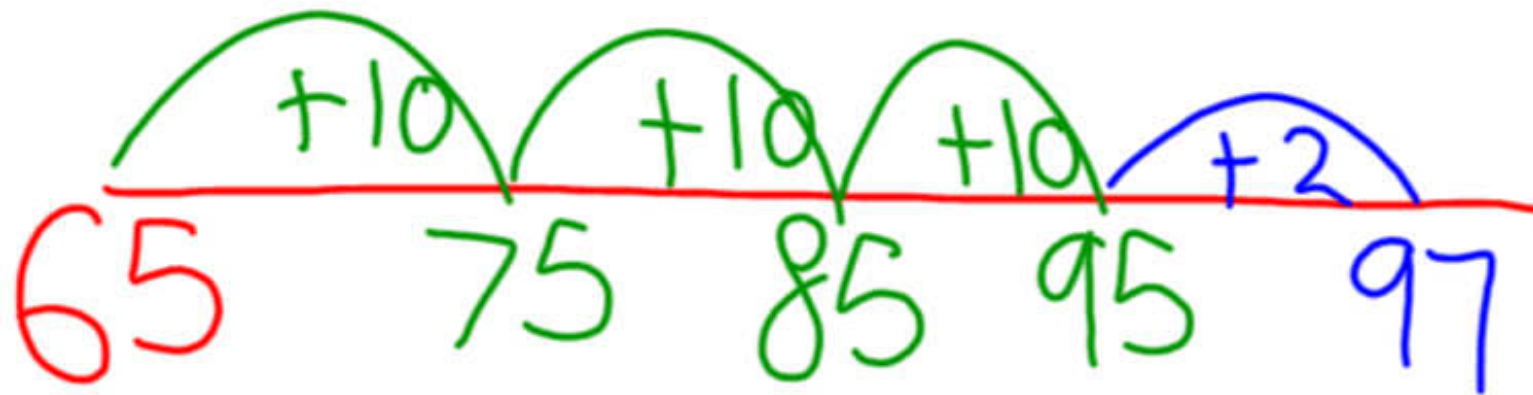
$$\begin{array}{r} 60 \\ + 20 \\ \hline 80 \\ \text{8} \\ + 3 \\ \hline 11 \\ 80 \\ + 11 \\ \hline 91 \end{array}$$

Numberline

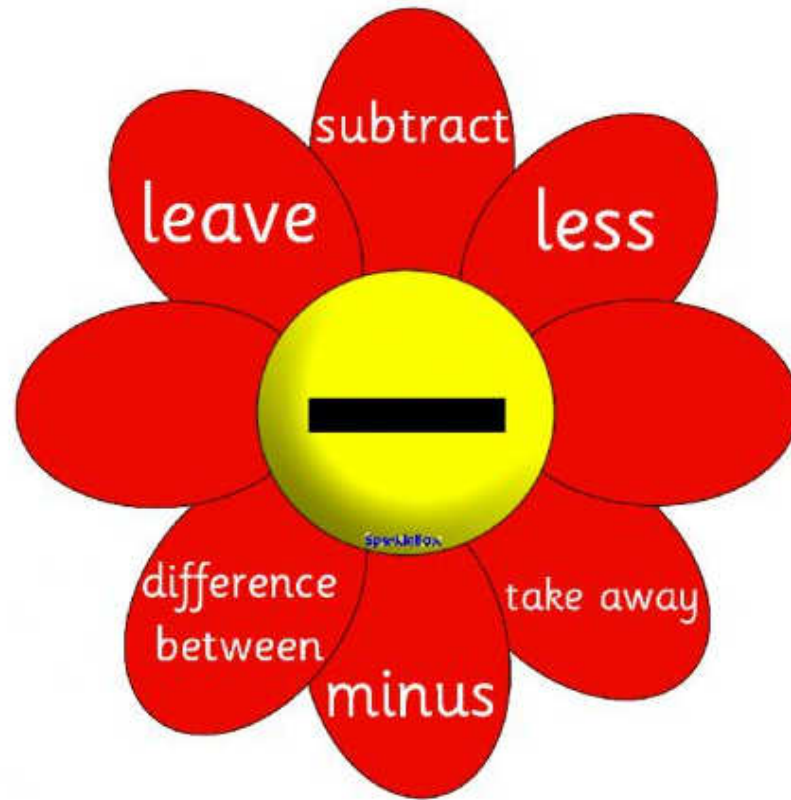
- Place the first number at the start of the line.
- Partition the 2nd number into tens and ones
- Add the tens onto the numberline
- Add the ones onto the numberline



$$65 + 32 =$$

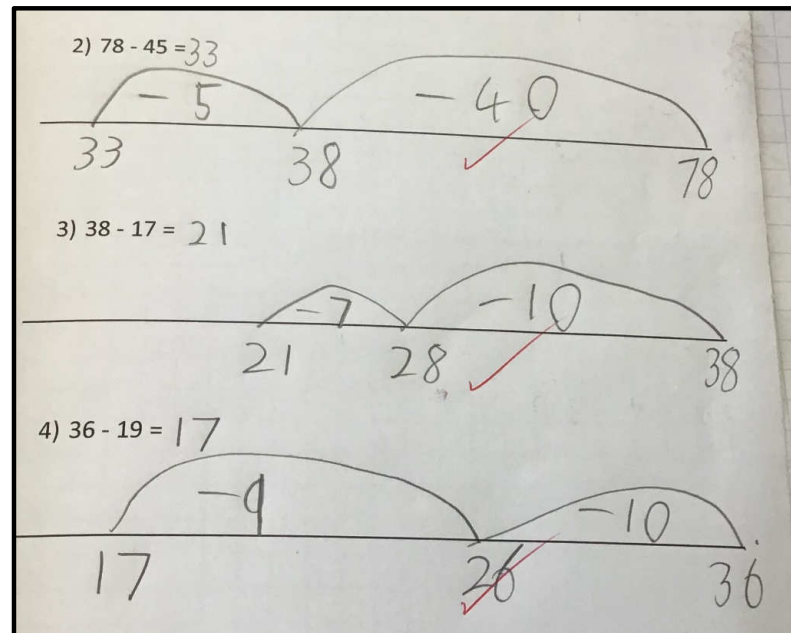


Subtraction



Numberline

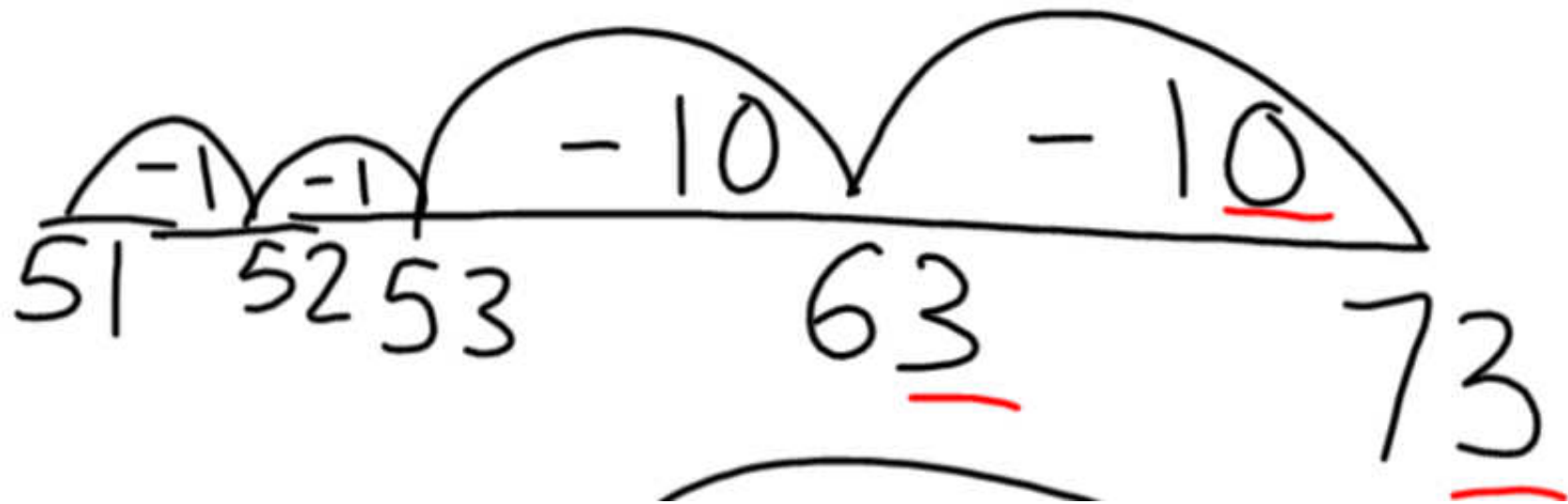
- Place the biggest number at the end of the line.
- Partition the 2nd number into tens and ones
- Take away the tens onto the numberline
- Takeaway the ones onto the numberline



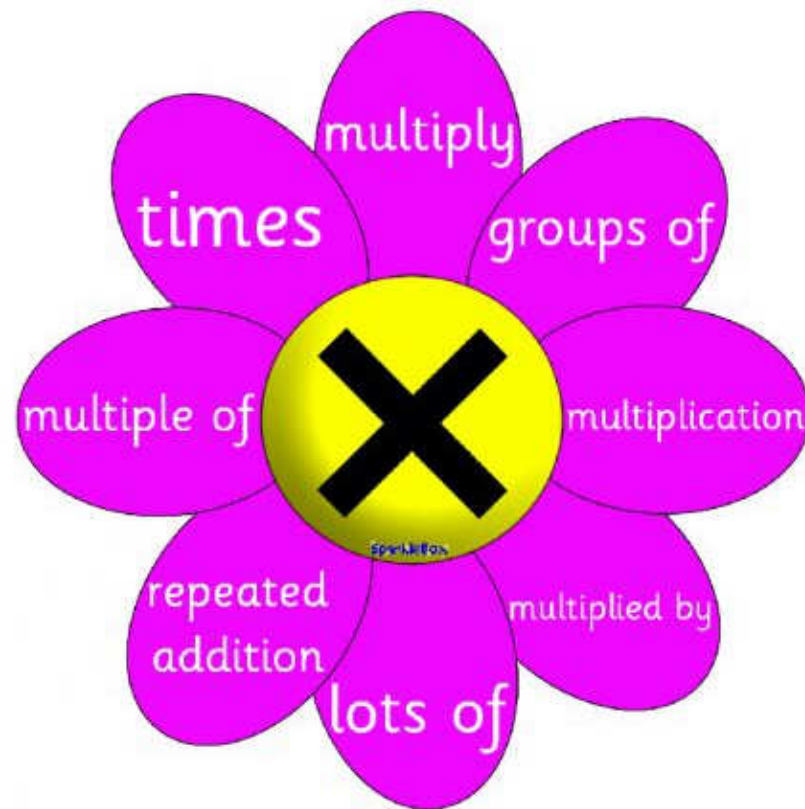
$$68 - 11 = 57$$



$$73 - 22 = 51$$



Multiplication

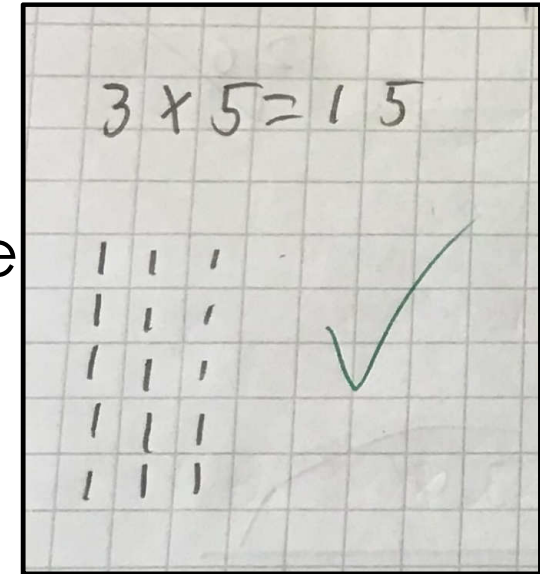


Array

- If the question is 3×2
- Create 3 rows of 2 dots
- Count each row in 2's to see how many there are altogether.

Or

- Create 2 rows of 3 dots
- Count in 3's to see how many there are altogether.



$$3 \times 2 = 6$$

∴

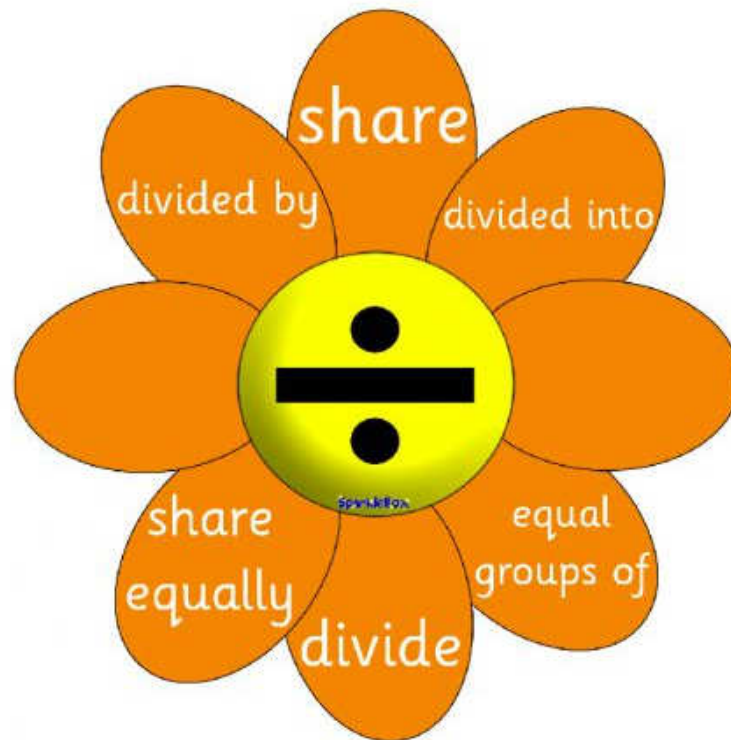
$$2 \times 3 = 6$$

∴

$$6 \times 3 = 18$$

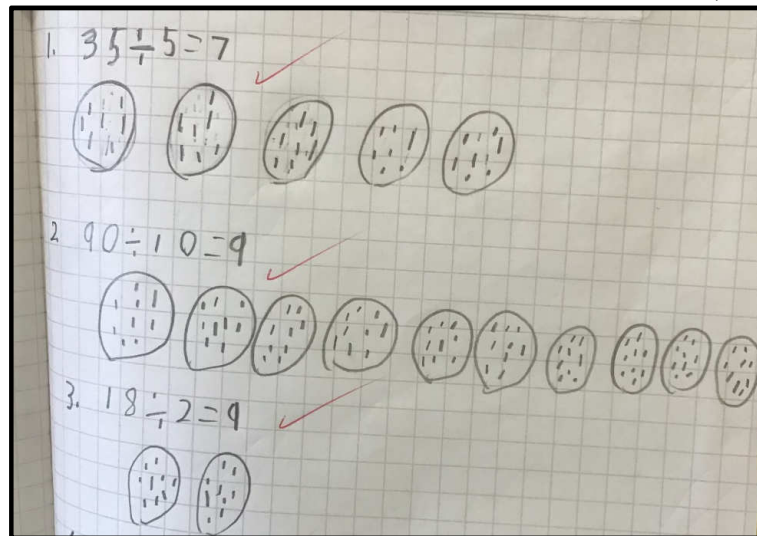


Division

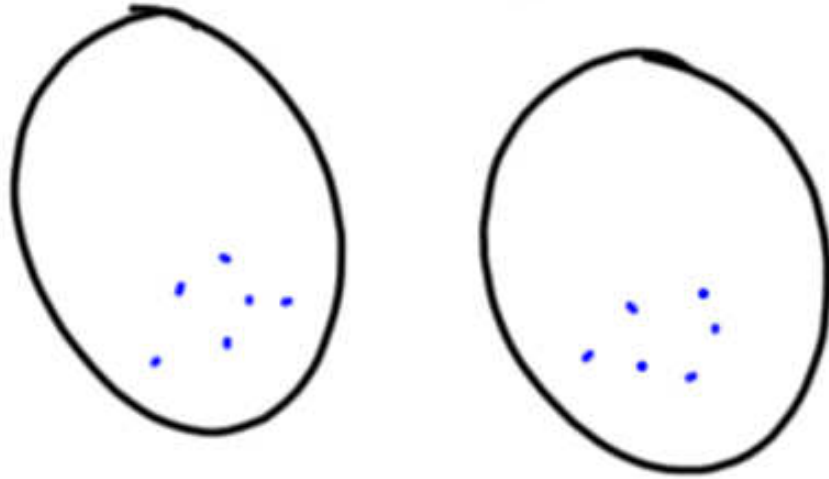


Sharing

- If the question is $12 \div 2$
- Draw two circles because that is how many the total is being shared into.
- Share 12 equally by placing one dot in each circle until reaching 12 altogether.
- Count the number of dots in one circle, that is your answer.



$$12 \div 2 = 6$$



$$135 \div 5 = 7$$

