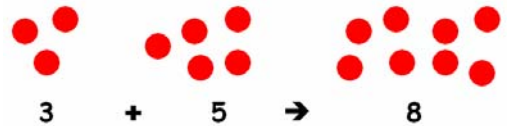


# + ADDITION +

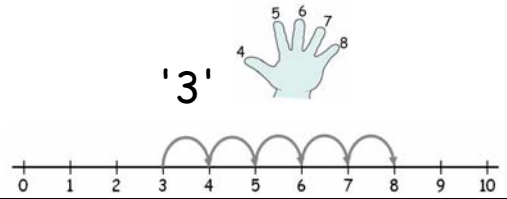
## Count all:

**3 + 5** count out three counters and then five counters and then find the total by counting all the counters



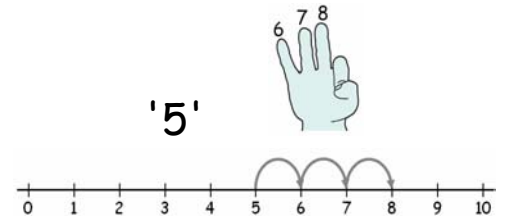
## Count on from the first number:

**3 + 5** count on from the first number:  
*'four, five, six, seven, eight.'*



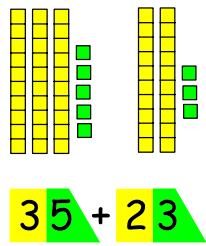
## Count on from the larger number:

**3 + 5** choose the larger number, even when it is not the first number, and counts on from there:  
*'six, seven, eight'*



### Partitioning

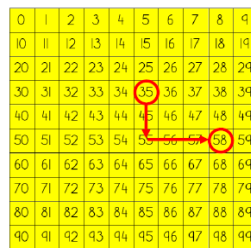
**35 + 23**



$$\begin{aligned} 35 + 23 &= 30 + 5 + 20 + 3 \\ &= 30 + 20 + 5 + 3 \\ &= 50 + 8 \\ &= 58 \end{aligned}$$

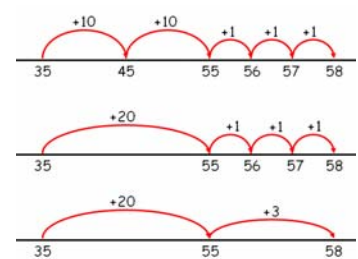
### 100 square

**35 + 23**



### Number lines

**35 + 23**



Adding several small numbers

Using known facts

Missing number calculations



# - SUBTRACTION -

## COUNTING BACK (take away)

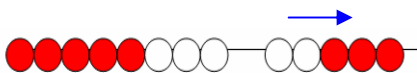
**9 - 3** count out 9 counters, then take away 3, then count the counters that remain



**4 less than 10**

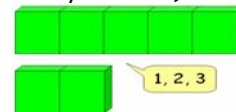


**13 - 5**



## COUNTING ON (difference)

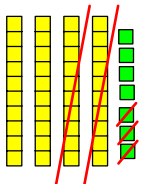
**5 - 2** count how many less/fewer cubes are there (compare the quantities)



**'the difference between 3 and 6'**

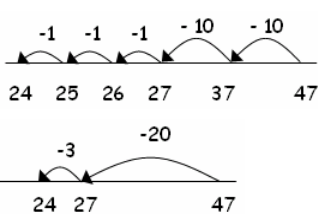


**47 - 23**

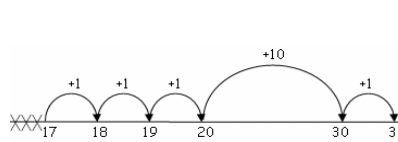


**47 - 23**

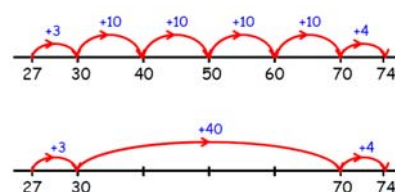
$$\begin{aligned} &= 47 - 20 - 3 \\ &= 27 - 3 \\ &= 24 \end{aligned}$$



**31 - 17**



**74 - 27**



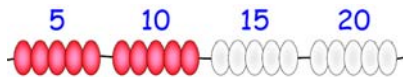
Using known facts

Missing number calculations

# x MULTIPLICATION x

## Counting in equal steps

(2s, 3s, 4s, 5s & 10s)



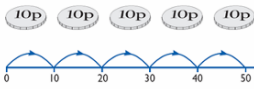
## Repeated addition



$$2 + 2 + 2 + 2 + 2 = 10$$

$$2 \times 5 = 10$$

2 multiplied by 5  
5 pairs

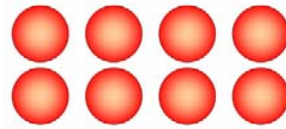


$$10p + 10p + 10p + 10p + 10p = 50p$$

$$10p \times 5 = 50p$$

5 jumps of 10

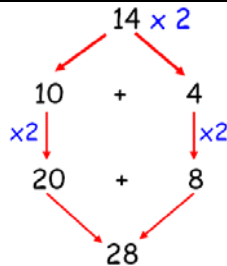
## Describing an array



$$4 \times 2 = 8$$

$$2 \times 4 = 8$$

## Partitioning

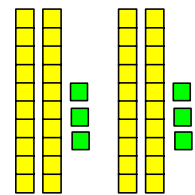


$$14 \times 2$$

$$= 10 \times 2 + 4 \times 2$$

$$= 20 + 8$$

$$23 \times 2$$



Can be done in any order    Using known facts    Missing number calculations    Links to doubling



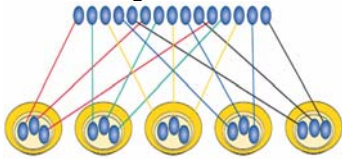
# ÷ DIVISION ÷

## SHARING

6 toy cars are shared between 2 children.  
How many will they have each?



15 marbles are shared out equally  
among 5 children.

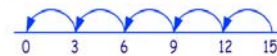
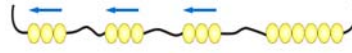


## GROUPING

There are 6 cars; each child can have 2 cars.  
How many children will get 2 cars?



15 marbles put into groups of 3.

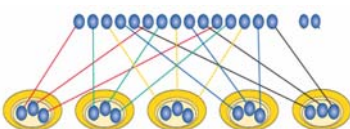


## REMAINDERS

2 pupils have 7 lollipops to share equally between them.  
How many will be left over?

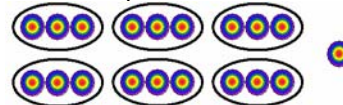


$$17 \div 5$$

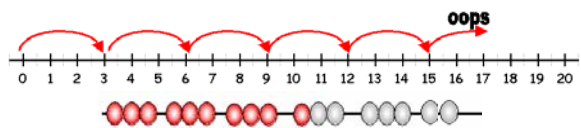


## REMAINDERS

If there are 19 marbles and each child can have 3.  
How many will be left over?



$$17 \div 3$$



Using known facts

Missing number calculations

Links to halving