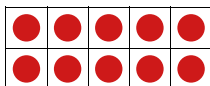


Year 2 Addition and Subtraction Knowledge Organiser

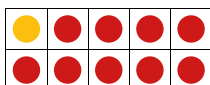
Maths

Number bonds to 10

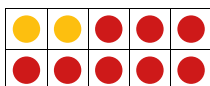
$0 + 10 = 10$



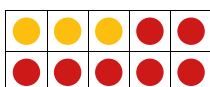
$1 + 9 = 10$



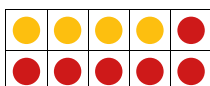
$2 + 8 = 10$



$3 + 7 = 10$



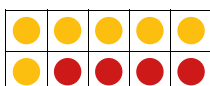
$4 + 6 = 10$



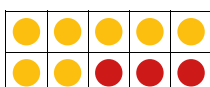
$5 + 5 = 10$



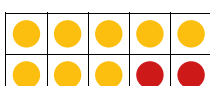
$6 + 4 = 10$



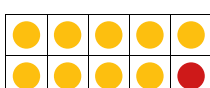
$7 + 3 = 10$



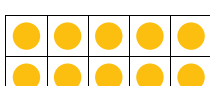
$8 + 2 = 10$



$9 + 1 = 10$



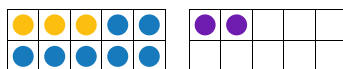
$10 + 0 = 10$



Add three 1-digit numbers

We can look for a **bond to 10** to add together first, and then add the third number.

$3 + 7 + 2 = 12$



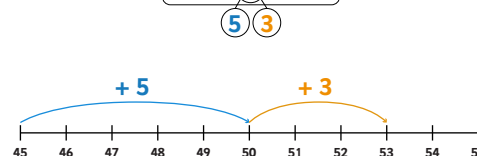
3 and 7 are a bond to 10
 $10 + 2 = 12$
 So 3 + 7 + 2 = 12

Addition

Add across a 10

When adding **across a 10**, we can add to the **next 10** and then add on the remainder.

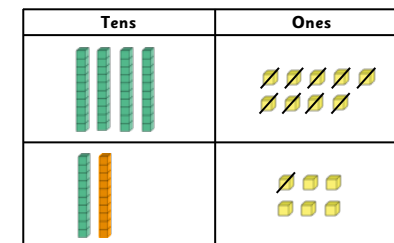
$45 + 8 = 53$



Add two 2-digit numbers

We can **exchange 10 ones** for **1 ten** when adding across a 10.

$49 + 16 = 65$

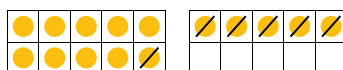


Subtraction

Subtract across a 10

We can use **tens frames** to help us **subtract across a 10**.

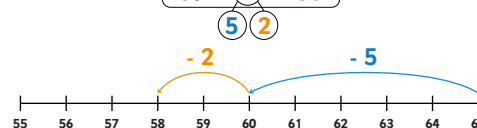
$15 - 6 = 9$



Subtract a 1-digit number from a 2-digit number

We can use **partitioning** to subtract a 1-digit number from a 2-digit **across a 10**.

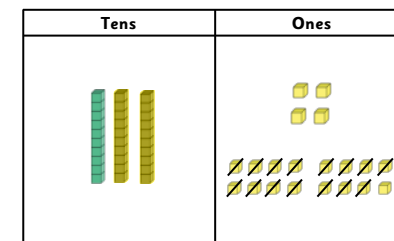
$65 - 7 = 58$



Subtract two 2-digit numbers

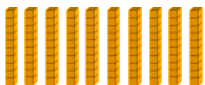
We can **exchange 10 ones** for **1 ten** when subtracting across a 10.

$34 - 19 = 15$

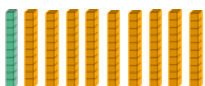


Bonds to 100

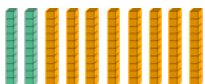
$$0 + 100 = 100$$



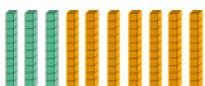
$$10 + 90 = 100$$



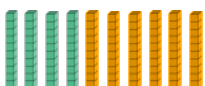
$$20 + 80 = 100$$



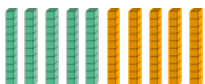
$$30 + 70 = 100$$



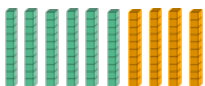
$$40 + 60 = 100$$



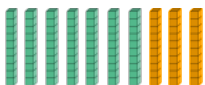
$$50 + 50 = 100$$



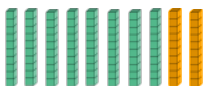
$$60 + 40 = 100$$



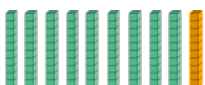
$$70 + 30 = 100$$



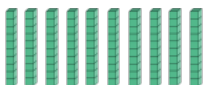
$$80 + 20 = 100$$



$$90 + 10 = 100$$

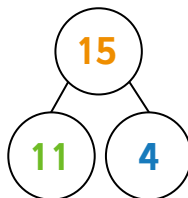


$$100 + 0 = 100$$



Fact families

We can use a **part-whole model** to help us write **fact families**.



part + part = whole

$$11 + 4 = 15$$

part + part = whole

$$4 + 11 = 15$$

whole - part = part

$$15 - 11 = 4$$

whole - part = part

$$15 - 4 = 11$$

10 more, 10 less

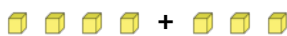
We can use **dienes** to help us find **10 more** or **10 less**.

10 less	Number	10 more
31	41	51

Only the **digit** in the **tens column** will change.

Related facts

We can use **addition** and **subtraction** facts to find the answers to larger calculations.



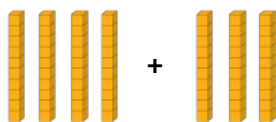
$$4 \text{ ones} + 3 \text{ ones} = 7 \text{ ones}$$

$$4 + 3 = 7$$



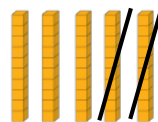
$$5 \text{ ones} - 2 \text{ ones} = 3 \text{ ones}$$

$$5 - 2 = 3$$



$$4 \text{ tens} + 3 \text{ tens} = 7 \text{ tens}$$

$$40 + 30 = 70$$



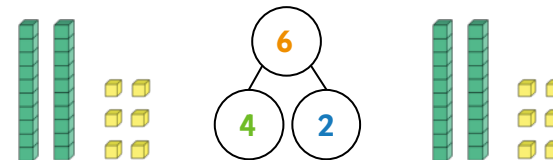
$$5 \text{ tens} - 2 \text{ tens} = 3 \text{ tens}$$

$$50 - 20 = 30$$

Missing number problems

We can use **partitioning** to help us find the answer to **missing number problems**.

$$20 + 6 = 24 + \boxed{2}$$



6 can be partitioned into 4 and 2

$$20 + 6 = 20 + 4 + 2$$

