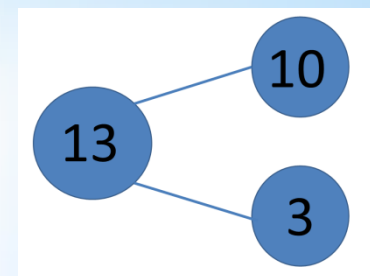
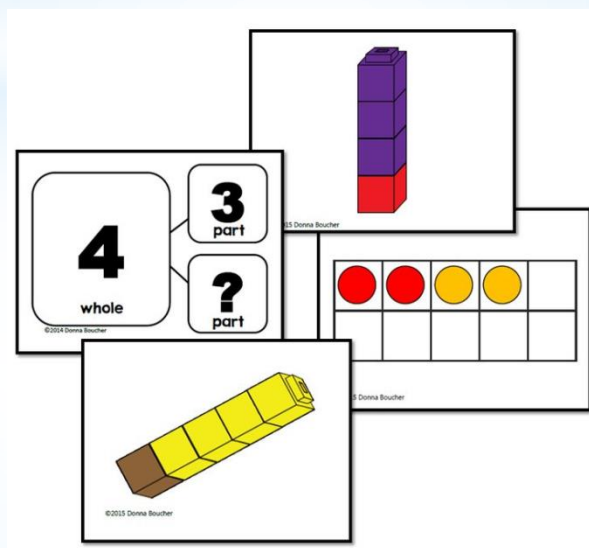
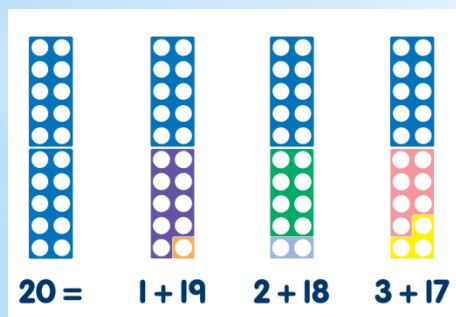




# Number Bonds



# What are 'number bonds'?

Number bonds are a way of showing how numbers can be combined or split up.

They are used to reflect the 'part-part-whole' relationship of numbers.

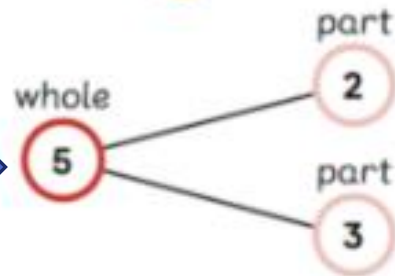
# How do children learn about 'number bonds'?

Concrete

Put 5 cakes on two plates.



Pictorial



This is a number bond.

2 and 3  
make 5.

$$2+3=5$$

$$3+2=5$$

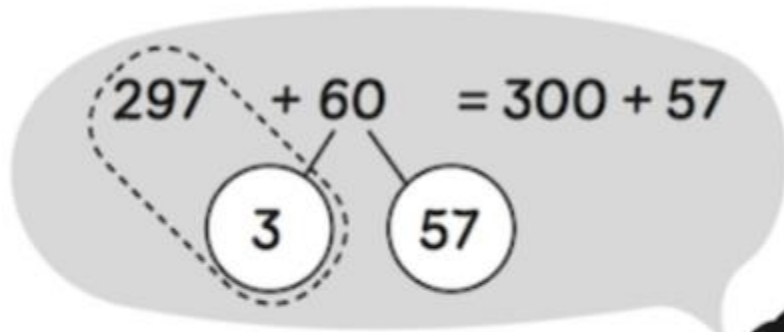
Abstract

# Taking 'number bonds' further

- Number bonds are used to develop strategies such as 'making ten'.
- By mastering number bonds early on, pupils build the foundations they need for subsequent learning and are better equipped to develop mental strategies and mathematical fluency.
- Building a strong number sense, helps pupils to decide what action to take when trying to solve problems in their head.

# Taking 'number bonds' further

Add 297 and 60.



$$297 + 60 = 357$$



Your Turn!

Can you use number bonds to solve the calculations?

$$546 + 48 =$$

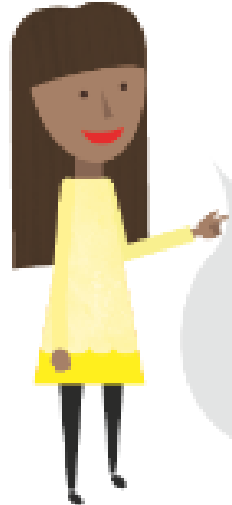
$$632 + 259 =$$

Using the apparatus, how many different ways can you represent this number bond?

$$7 + 3 =$$

What could you use that you have at home?

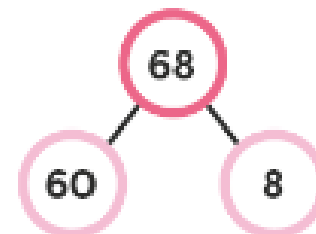
# Taking 'number bonds' further



A girl with long dark hair, wearing a yellow dress, points to a grey speech bubble containing a number bond diagram. The diagram shows a top circle with '12' and the equation  $12 \times 4 = 48$ . Two lines connect this to two bottom circles: the left one contains '10' with  $10 \times 4$  below it, and the right one contains '2' with  $2 \times 4$  below it.

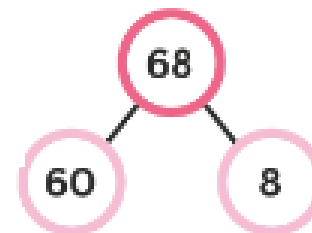
$$68 \div 2 = \square$$

6 tens  $\div 2$   
 $= 3$  tens



6 tens  $\div 2$

8 ones  $\div 2$   
 $= 4$  ones



6 tens  $\div 2$     8 ones  $\div 2$

$$68 \div 2 = 30 + 4 = 34$$