Weekly overview:

Lesson 1: Subtracting 10 using dienes.

Lesson 2: Subtracting 10s using drawing.

Lesson 3: Fact Families

Lesson 4: Fact Families

whole add subtract
parts altogether whole
equal

Google - 100 Hunt
Play find any number or 10 less / 10 more

lesson 1

Engage

Key learning: to subtract 10 to a number.

Success criteria:
I understand what subtraction means.
I can cross of the tens to find an answer.
I can count the amount left to find the answer.
I can draw the tens and ones for a given equation.

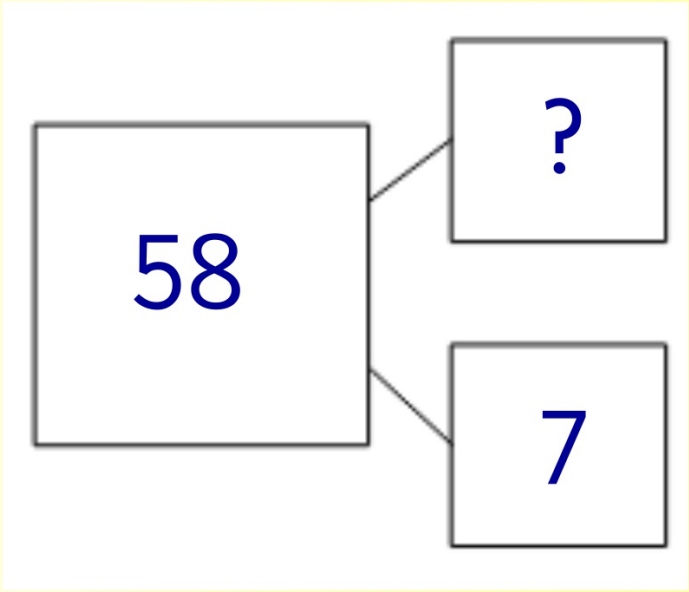
parts subtract ten whole equal ones

Let's Recap

What does subtraction mean?

Introduce

(5 mins)



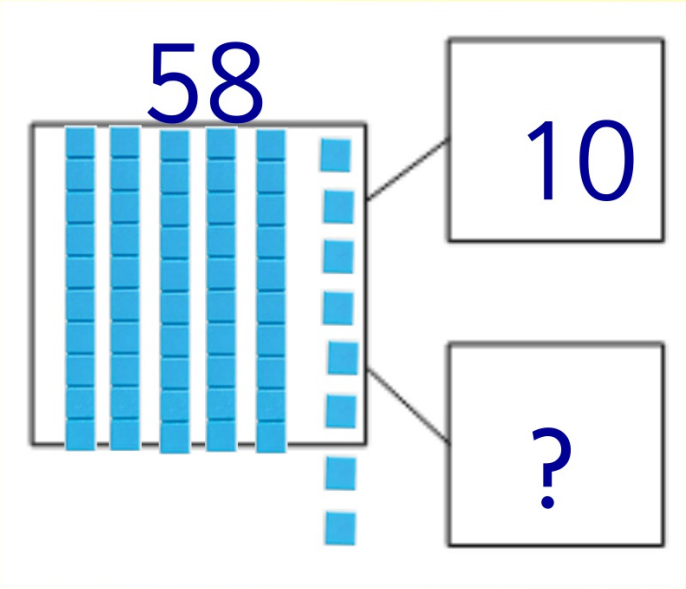
My Whole is ___ . My parts are __ and ___

Subtracting is when we start with a whole amount and split it into two parts. One part we know the other we have to work out.

Introduce

(5 mins)

We have looked at subtracting ones from a number. Today we will be thinking about subtracting tens.

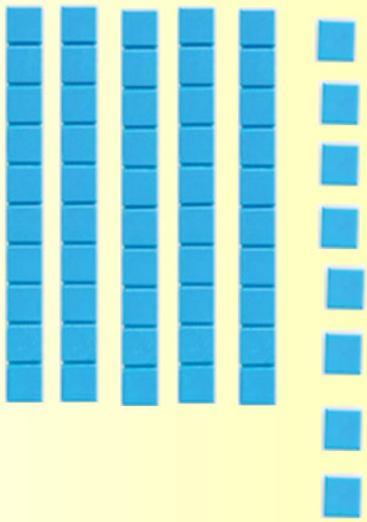


58 - 10 = ?

How would we solve this equation?

Practise

58 - 10 = ?

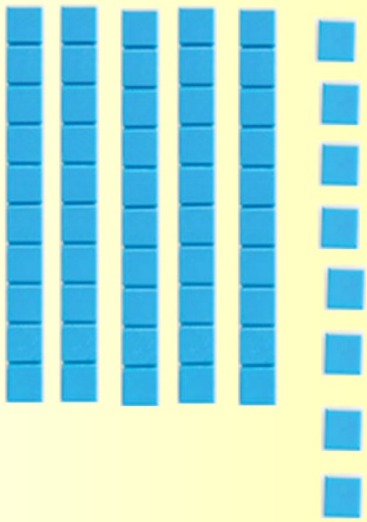


We take away or cross out a ten instead of ones. Can you do this for this equation?

How would we solve this equation?

Independent

58 - 10 = ?



We take away or cross out a ten instead of ones. Can you do this for this equation?

Task 1

Independent

Use the pictures to help you solve these equations. Remember to cross out tens and not the ones.

38 – 10 =

54 – 10 =

66 – 10 =

19 – 10 =

Task 2

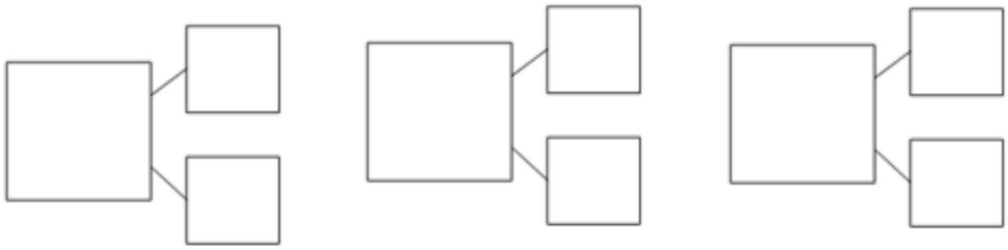
Solve these equations –

1. Draw your tens and ones for the whole
2. Cross off the number of tens you are subtracting
3. Count what is left to find the answer.

72 – 10 = **31 – 10 =** **33 – 10 =**

Can you also complete the part part whole models?

Remember when we subtract we start with the whole.



Google - 100 Hunt
Play find any number or 10 less / 10 more

lesson 2

Engage

Key learning: to subtract 10 to a number.

Success criteria:
I understand what subtraction means.
I can draw how many tens and ones in a number.
I can draw the tens and ones for the equations.
I can add or subtract the drawn tens find an answer.

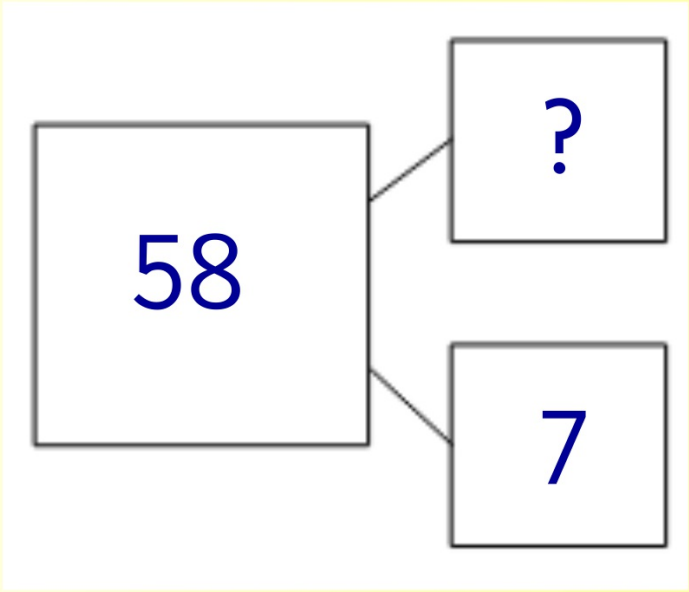
parts subtract ten whole equal ones

Let's Recap

What does subtraction mean?

Introduce

(5 mins)

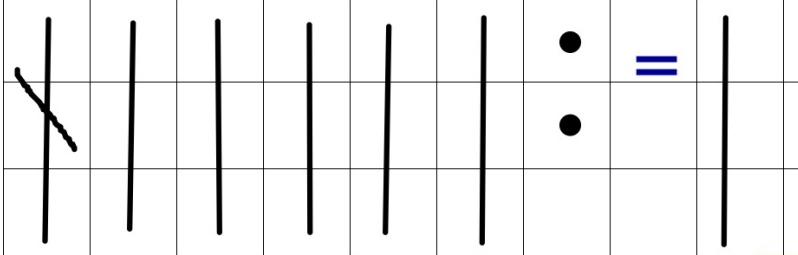


My Whole is ___ . My parts are __ and ___

Subtracting is when we start with a whole amount and split it into two parts. One part we know the other we have to work out.

Subtracting tens using the drawing method.

62 - 10 = 52



How to guide:

1. Write equation
2. Draw 10s and 1s for the whole
3. Subtract the number of tens
4. Count and draw the tens
5. Count and draw the ones
6. Count what is left.
7. Write an answer

Practise

Lets solve these together.

53 + 10 =

36 - 20 =

Independent task

Solve the equations using the drawing method to help.

Mild

24 - 10 =
16 - 10 =
31 - 10 =

47 - 10 =
68 - 10 =
83 - 10 =

Spicy

22 - 20 =
47 + 30 =
31 + 20 =

65 - 20 =
75 - 40 =
30 - 20 =

Hot

= 64 - 10
47 - ? = 37
72 - ? = 42

? - 10 = 89
? - 20 = 10
? - 40 = 1

My answer is 43. **? - ? = 43**

I started on a number less than 100 and I only subtracted tens.

What could my equation have been?

Find all the possibilities.

Challenge equations:

Can you subtract both tens and ones to solve these equations? Draw the tens and ones to help you.

37 – 12 =

43 – 21 =

67 – 34 =

48 – 37 =

Key learning: subtracting tens from a two digit number.

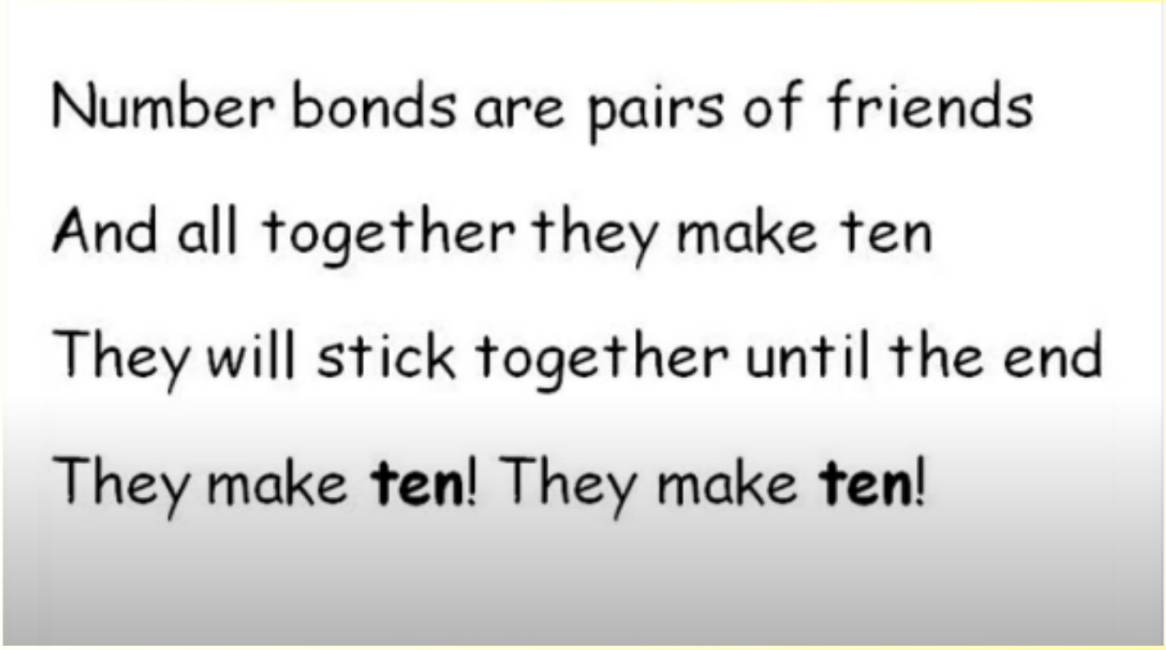
Write a maths story (word problem for this equation).

76 – 20 = 56

lesson 3

Engage

Google - Number bonds are pairs of friends - number bonds to 10 song



Can you remember your number bonds to 10?

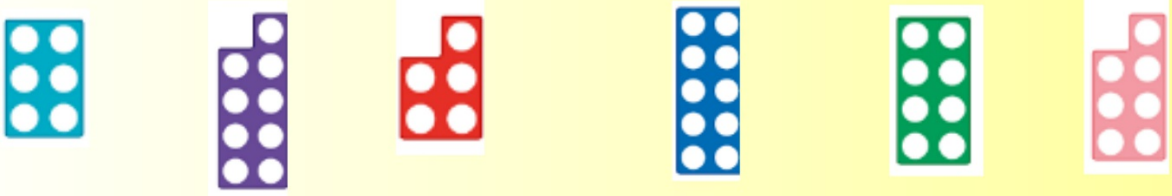
lesson 3

Engage

Match the number bonds that make 10.

0 1 2 3 4 5

6 9 5 10 8 7



Key learning: to recognise the relationship between addition and subtraction.

Success criteria:

I can recall my number bonds to 10.

I know that addition is **part + part = whole**.

I know that subtraction is **whole - part = part**.

I know that addition can be done in any order (is commutative)

I can make a fact family house.

part whole addition subtraction commutative inverse

Introduce

(5 mins)

Match the equation to the operation (type of equation) it is.

$3 + 4 = 7$

$6 - 2 = 4$

subtraction

addition

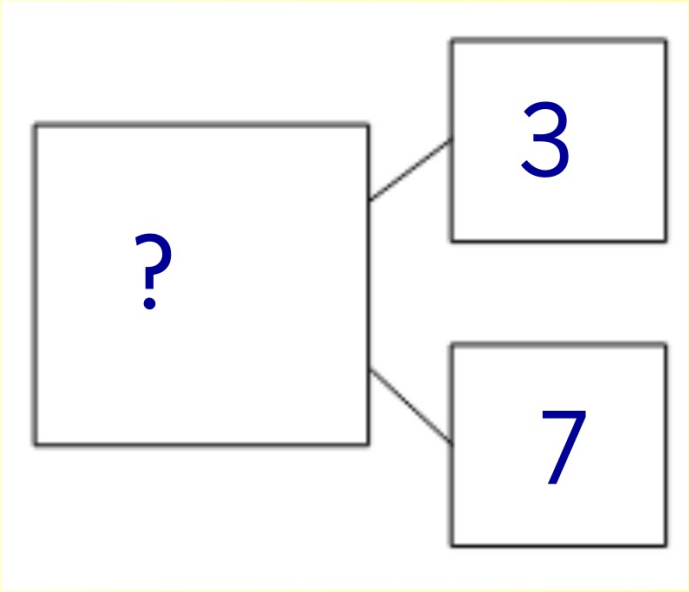
Explain how you know.

Let's Recap

What does addition mean?

Introduce

(5 mins)



My parts are __ and ___ . My whole is ___ .

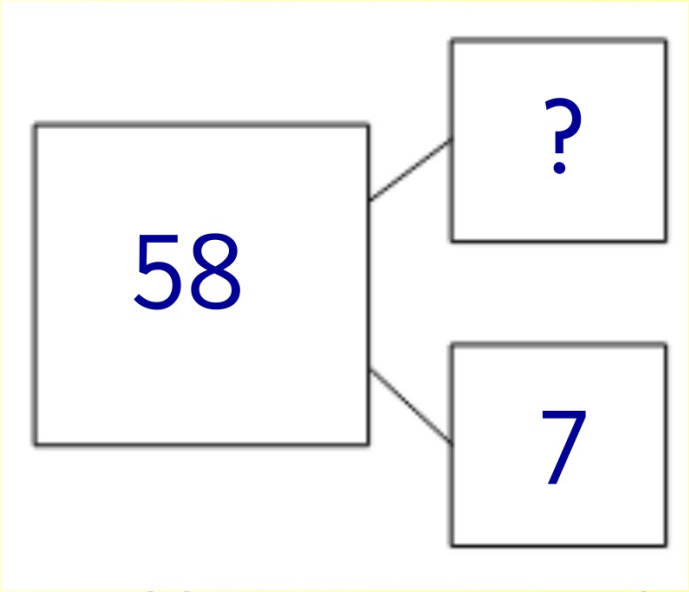
Adding is when we start with two parts and put them together to create a whole. We put two amounts together and count to find a total. We can add the parts in any order and we will always get the same answer.

Let's Recap

What does subtraction mean?

Introduce

(5 mins)



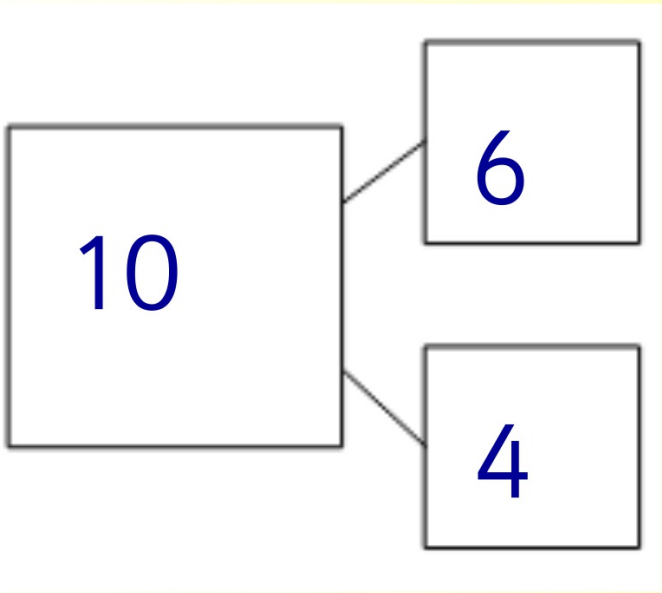
My Whole is ___ . My parts are __ and ___

Subtracting is when we start with a whole amount and split it into two parts. One part we know the other we have to work out. Subtraction cannot be done in any order, we must always start with the whole or biggest number.

Addition and subtraction facts have a special relationship because they are inverse operations. This means that they are the opposite to each other.

Introduce

(5 mins)



From this part part whole model we can know the following equations and maths facts.

$6 + 4 = 10$

$4 + 6 = 10$

$10 - 6 = 4$

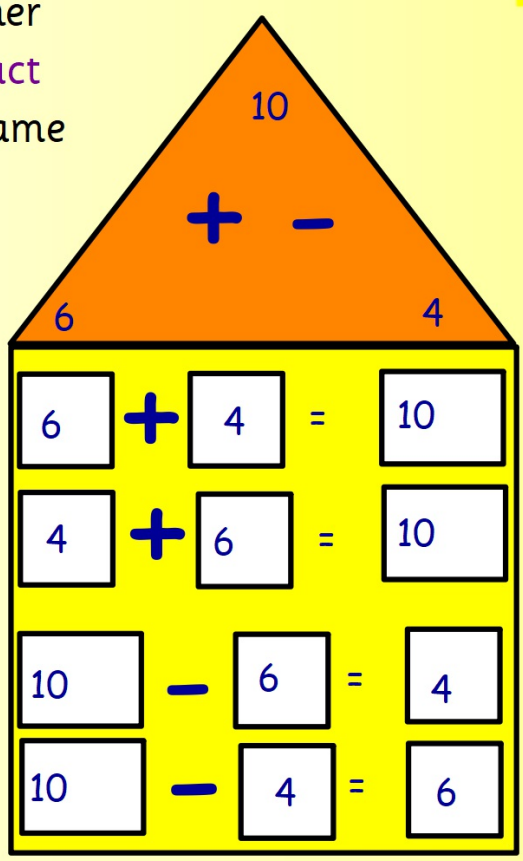
$10 - 4 = 6$

These equations will never change.

Introduce

(5 mins)

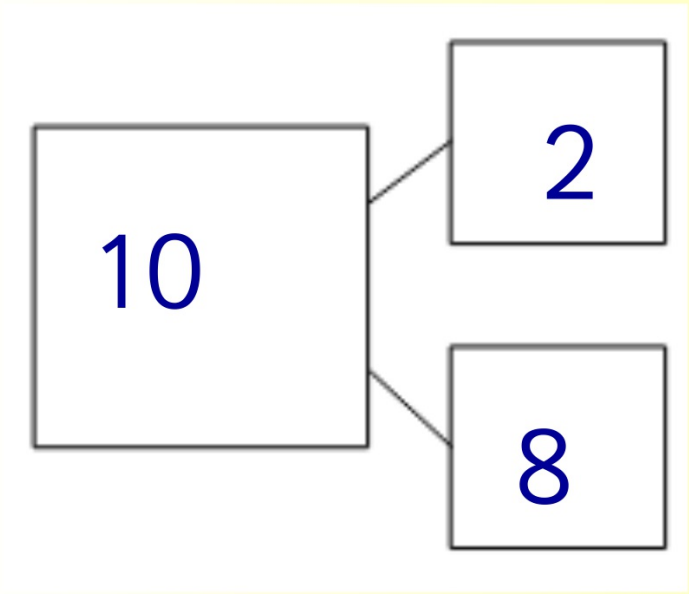
We call how numbers work together within addition and subtraction fact families because they live in the same house.

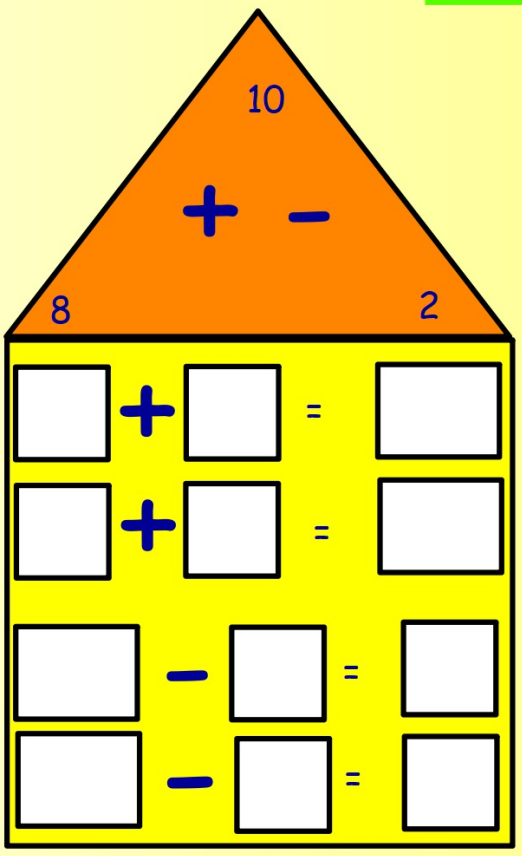


This means that using the same set of numbers we can create a group of equations that will always be true.

Practise

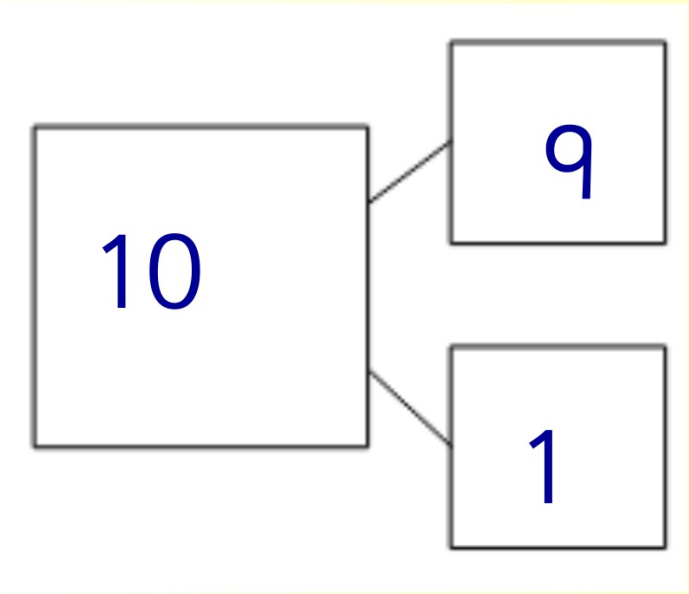
Can you complete the fact family for this part part whole model?

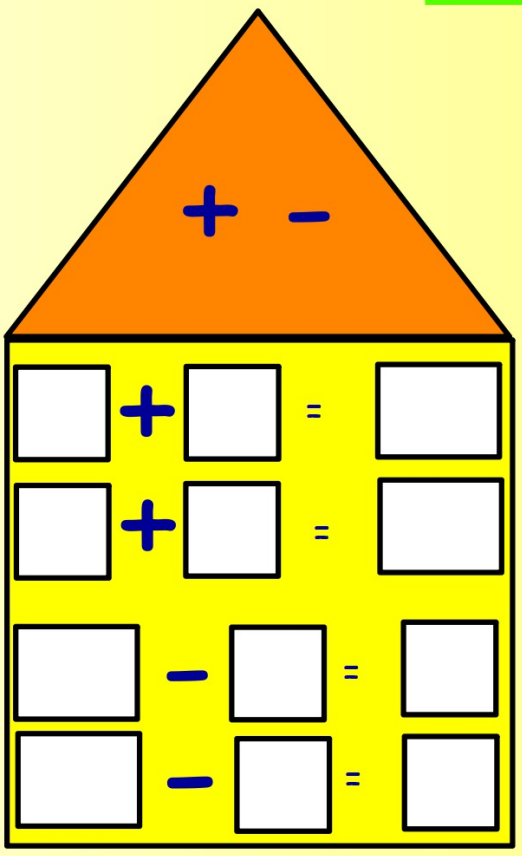




Practise

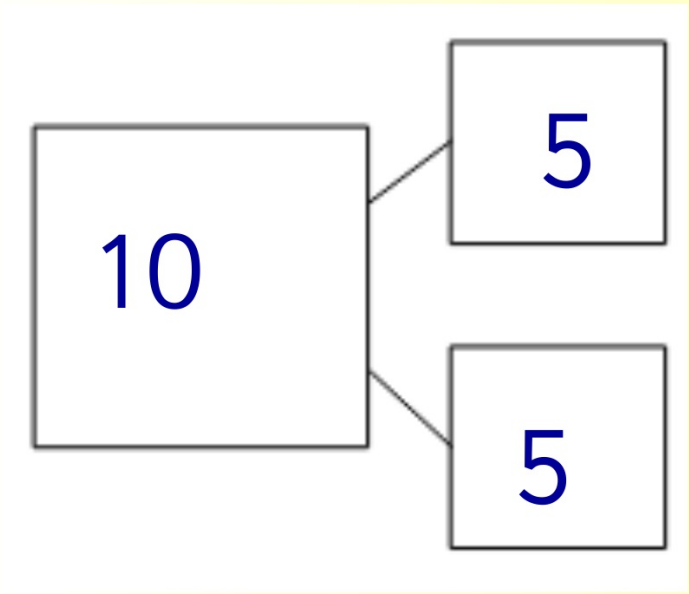
Can you complete the fact family for this part part whole model?

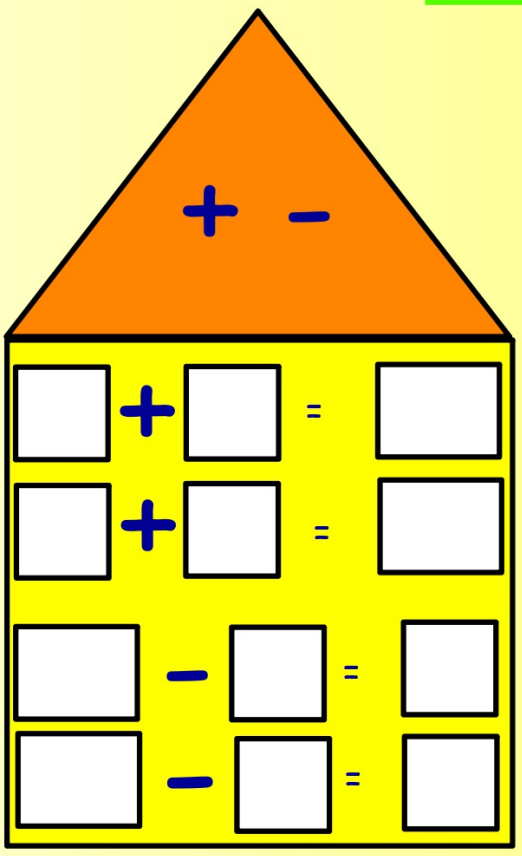




Practise

Can you complete the fact family for this part part whole model?





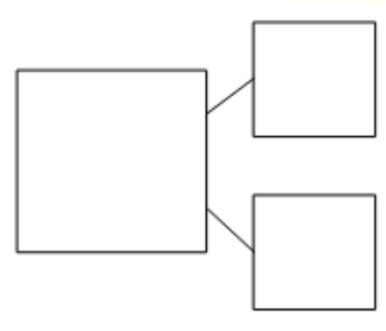
Independent task

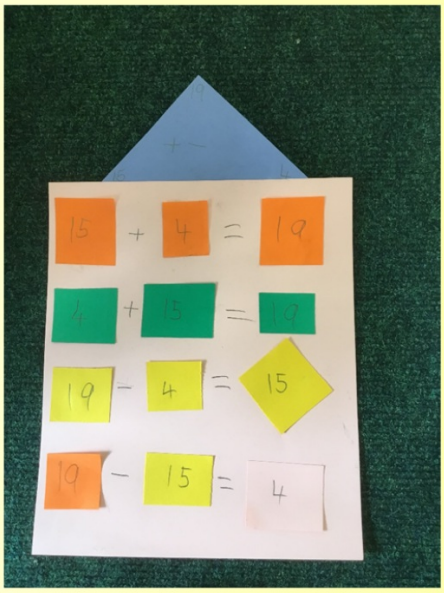
1. Choose a number bond to 10.

2. Fill in the part part whole model to find your parts and whole.

3. Use this to help you create your own fact family house for your number bond.

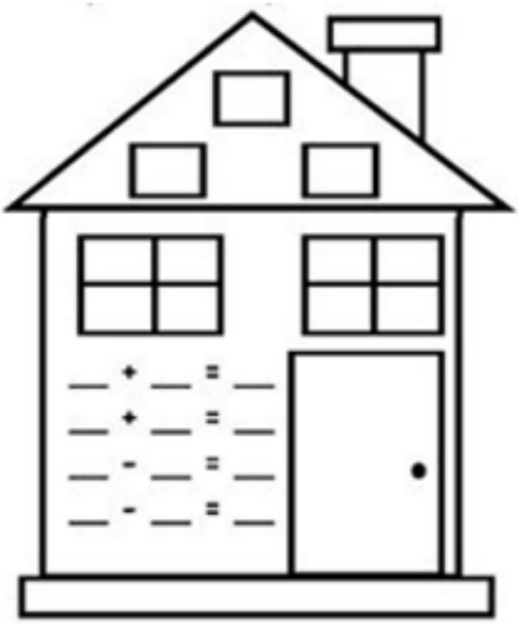
Remember to write both addition and both subtraction equations.





Deepening

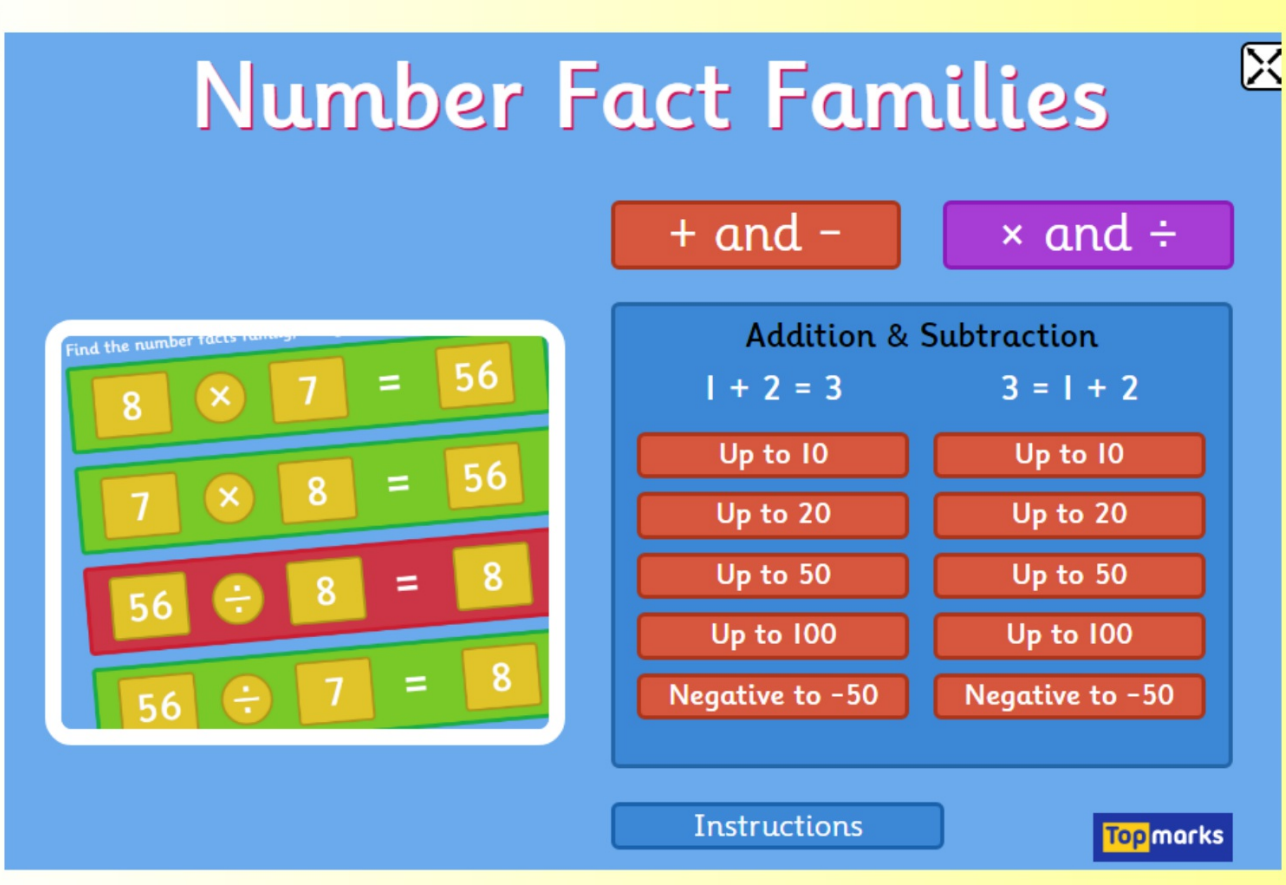
Choose a number bond to 20 or another addition and subtraction fact family you can think of within 20 (e.g. 13 + 4 = 17) and use this to complete two additional fact family houses.



Search for Top Marks Fact Families Game.
Play for + and - and choose whether within 10 / 20 / 50 or 100

lesson 3

Engage



Key learning: to recognise the relationship between addition and subtraction.

Success criteria:

I can recall my number bonds to 10.

I know that addition is **part + part = whol**.

I know that subtraction is **whole - part = par**.

I can complete addition and subtraction equations for a fact family

I can apply my knowledge to solve problems

part whole addition subtraction commutative inverse

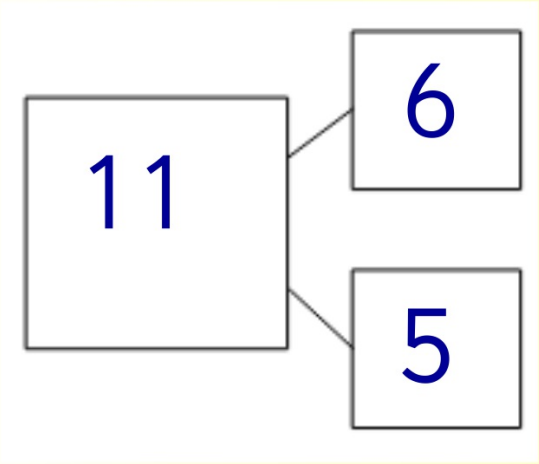
Let's Recap

What is a fact family?

Introduce

(5 mins)

A fact family is a group of equations that can be created using the same set of numbers.



6 + 5 = 11

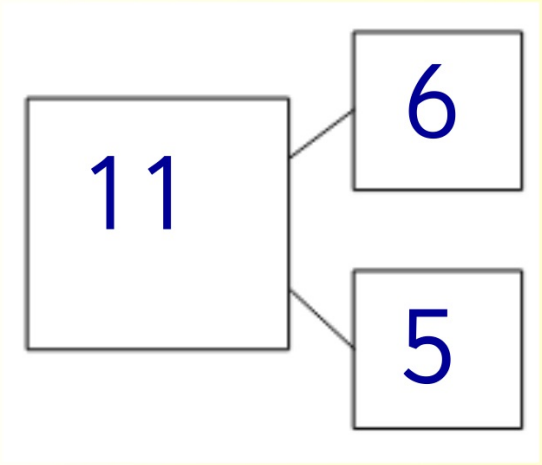
5 + 6 = 11

11 - 6 = 5

11 - 5 = 6

Introduce

(5 mins)



6 + 5 = 11

5 + 6 = 11

11 - 6 = 5

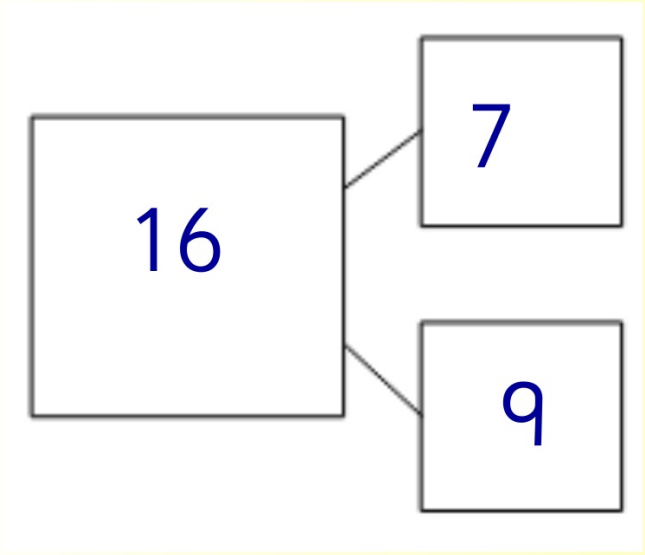
11 - 5 = 6

Fact families occur because addition and subtraction are inverse opertations (opposite to each other) and addition is commutative (can be done in any order). Subtraction is no commutative because we must always start with the biggest number.

Here is a fact family.

Practise

If you know these numbers, what equations do you know?



Learning Stop!

If we know 15 - 3 = 12, why can't we say

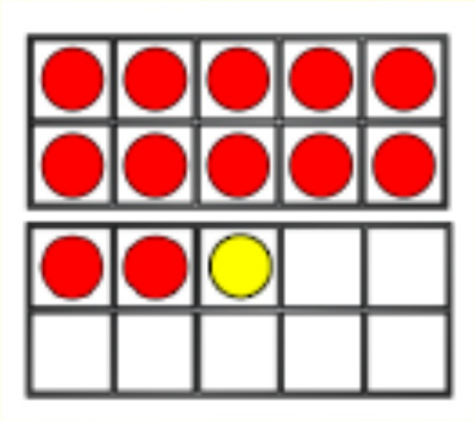
3 - 15 = 12 ?

Explain how you know.

Look at the different representations of fact families.

Practise

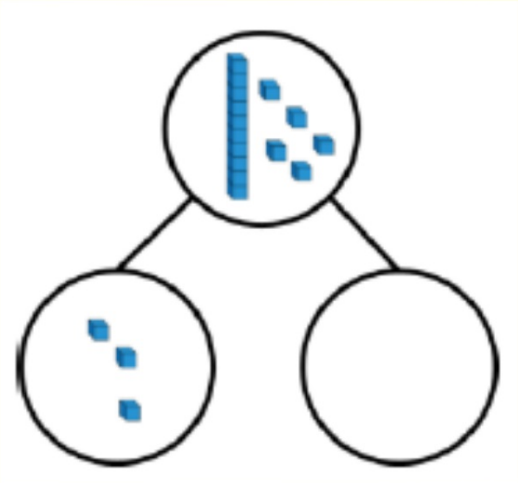
Can you work out the addition and subtraction equations they show? Look carefully some of the information may be missing!



Explain how you know.

Practise

What addition and subtraction facts does this fact family show?

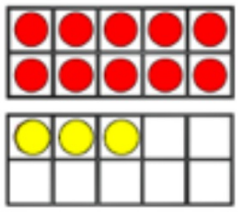
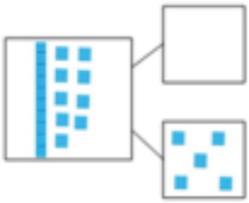
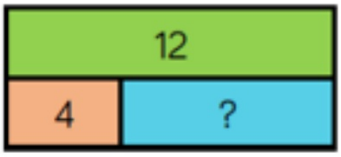
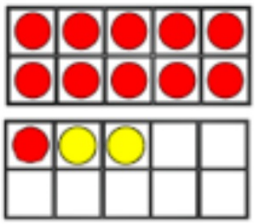


Explain how you know.

Practise

What addition and subtraction facts does this fact family show?

Explain how you know.

	_____ + _____ = _____ _____ + _____ = _____ _____ - _____ = _____ _____ - _____ = _____
	_____ + _____ = _____ _____ + _____ = _____ _____ - _____ = _____ _____ - _____ = _____
	_____ + _____ = _____ _____ + _____ = _____ _____ - _____ = _____ _____ - _____ = _____
	_____ + _____ = _____ _____ + _____ = _____ _____ - _____ = _____ _____ - _____ = _____

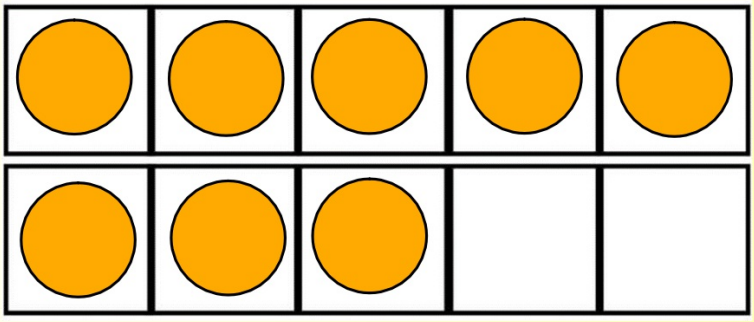
Independent task

Record the addition and subtraction equations for each fact family.

You may have to use your maths knowledge to work out some of the information.

Deepening

What fact family could this ten frame be showing?



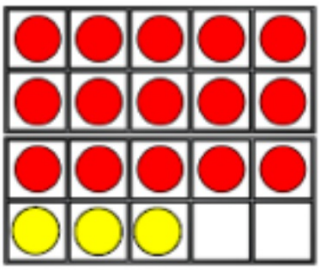
Explain how you know.

I think ... because ...

What would the addition and subtraction equations be?

Deepening

Circle the addition and subtraction number sentences that match the ten frames.



$15 + 3 = 18$	$15 - 3 = 18$
$3 + 18 = 15$	$18 - 15 = 3$
$18 + 3 = 15$	$18 - 3 = 15$
$18 = 3 + 15$	$15 - 18 = 3$

I have a whole of 14.

What fact family could be making up my parts?

Find all the different fact families that could make the whole of 14 and write the addition and subtraction equations for each one.

Record your answers on the next sheet.