



Maths

Addition and Subtraction

A Muddy Mess

The background is a purple color with a repeating pattern of light purple circles containing either a white plus sign or a white minus sign. Overlaid on this background are several brown, splattered shapes representing mud. On the left, a thick, vertical stream of mud drips downwards. To the right, there is a large, irregular, circular splash of mud. Scattered around these main splashes are numerous smaller, teardrop-shaped mud droplets.

twinkl

Aim

- I can use inverse relationships to solve missing number problems.

Success Criteria

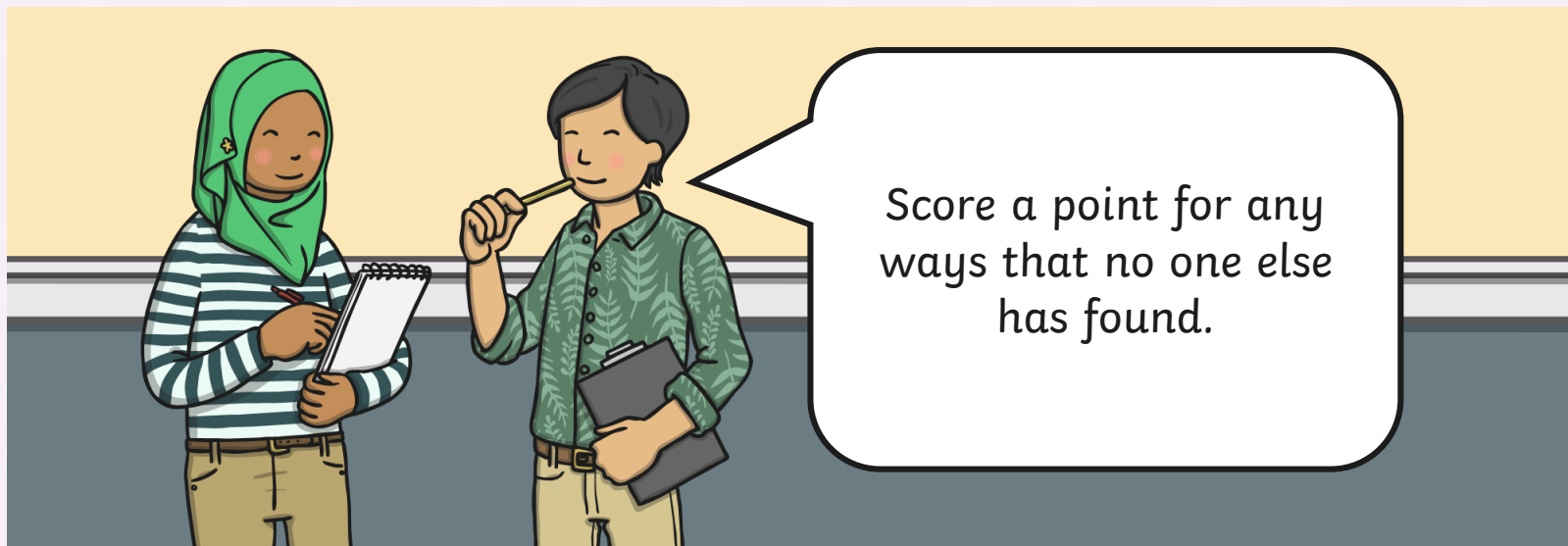
- I can use subtraction to find a missing number in an addition number sentence.
- I can use addition to find a missing number in a subtraction number sentence.
- I can use 'difference' to find a missing number in an addition or subtraction number sentence.

Make Me 2



How many ways can you find to make me by adding or subtracting 2 or more numbers?

Work with a partner.



I am the number 15.

Ingrid Inverses



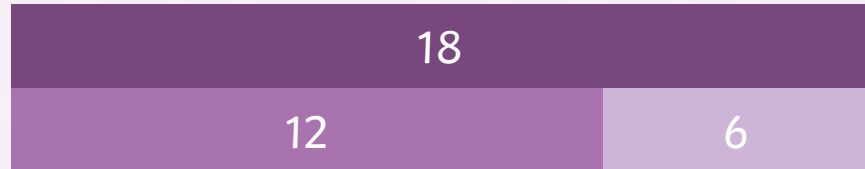
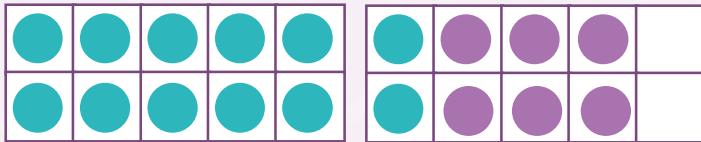
$$12 + 6 = 18$$

$$18 - 6 = 12$$

What do you notice?

If I subtract the amount I added, I get back to where I started.

$+$ and $-$ are inverses.



Ingrid Inverses



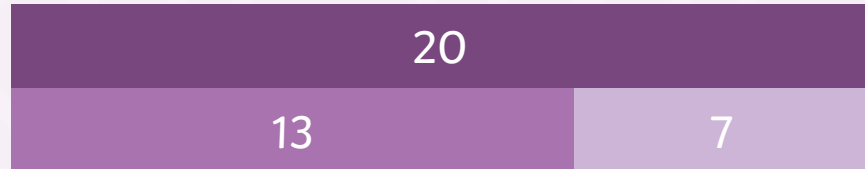
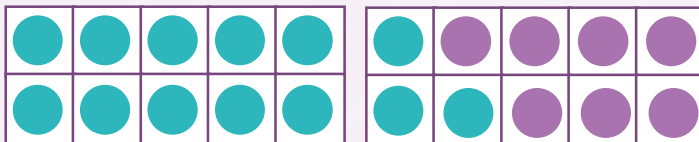
$$20 - 7 = 13$$

$$13 + 7 = 20$$

What do you notice?

If I add the amount I subtracted, I get back to where I started.

$+$ and $-$ are inverses.



Mind the Gap



We can check our work with an inverse e.g.

$$18 + 13 = 31$$

Can be checked with...

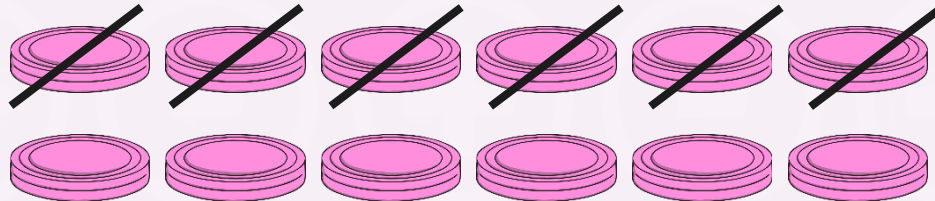
$$31 - 13 = 18$$

We can find gaps in number sentences using inverses too!

$$? + 6 = 18$$

Can be solved with...

$$18 - 6 = ?$$

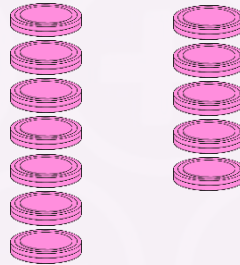


Mind the Gap



These look tricky but if we use an inverse, they are easy!

$$? + 7 = 12$$



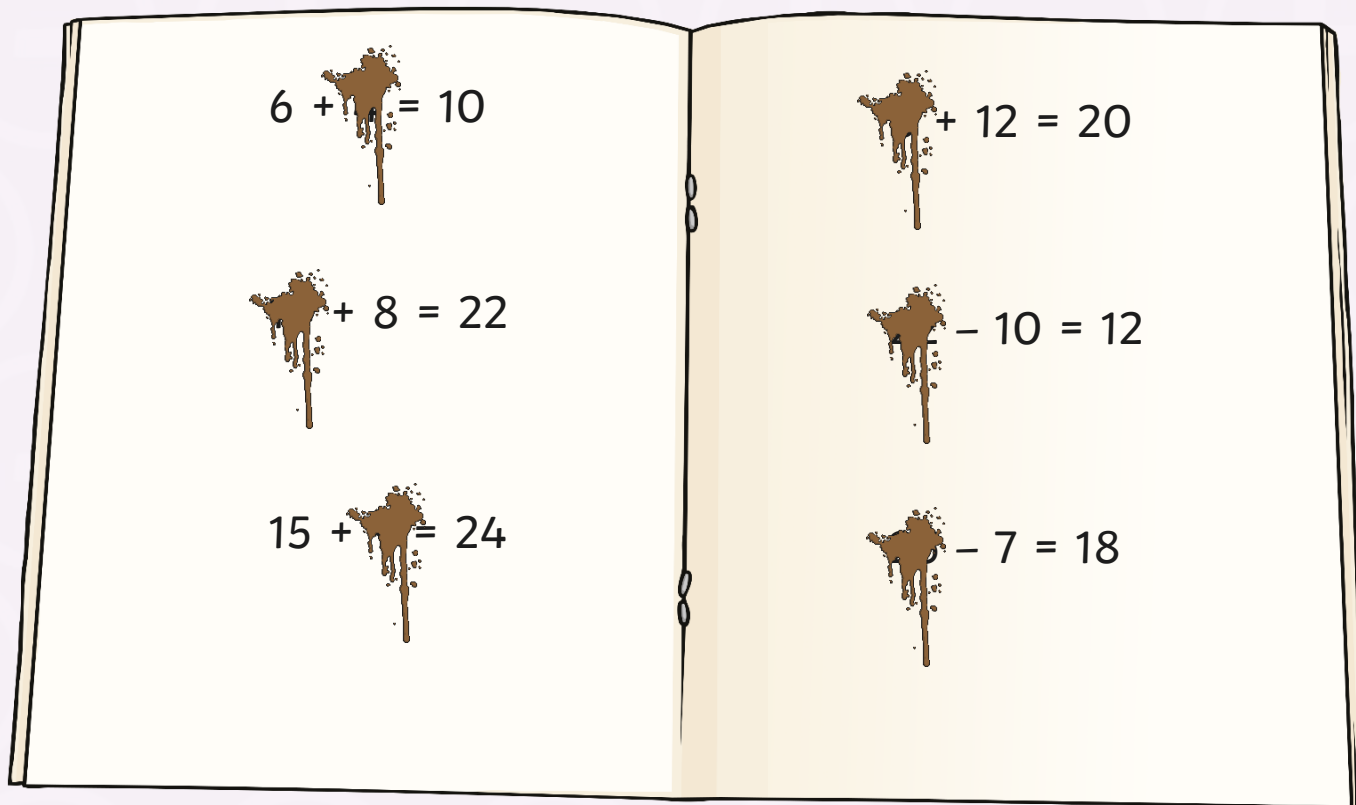
I don't know what I started with but I took away 7 and I am left with 5.

So if I add them back together, I can find out how many I had to begin with.

Mud Splats



Oh no! Ben's work is covered in mud! Can you help him work out the missing numbers? Click on the mud splats to reveal the numbers.



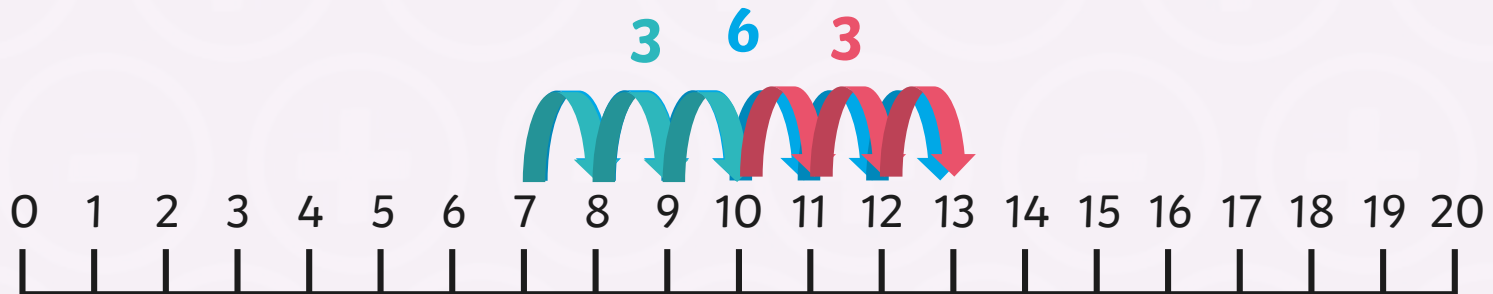
Find the Difference



Remember, finding the difference is a type of subtraction!

This can really help with missing number sentences.

$$7 + ? = 13$$



The difference between 7 and 13 is 6.

$$\text{So } 7 + 6 = 13.$$

Find the Difference



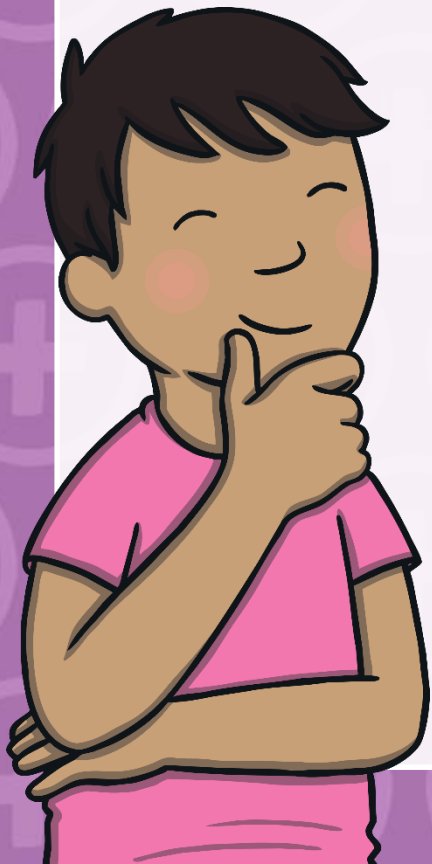
Use the 'find the difference' method to solve these missing number sentences.

Circle each number on your number line and count the jumps between.

$$? + 11 = 19$$

$$27 + ? = 34$$

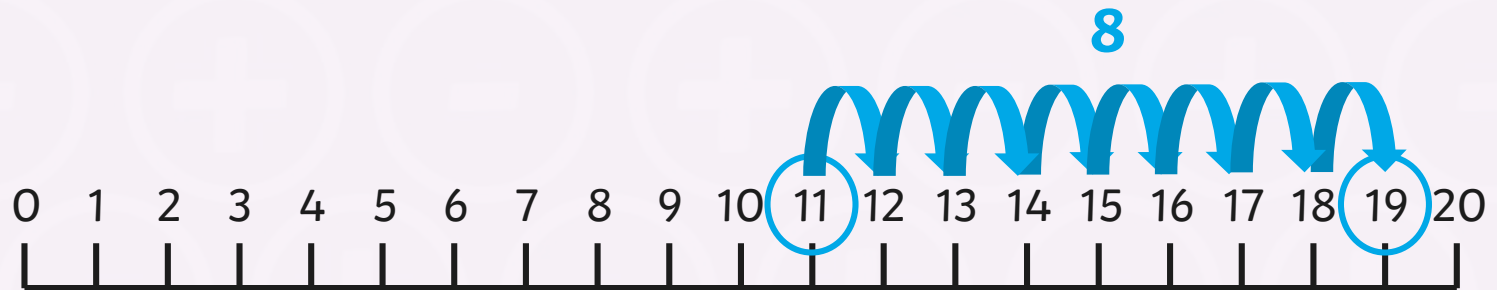
$$25 - ? = 16$$



Find the Difference



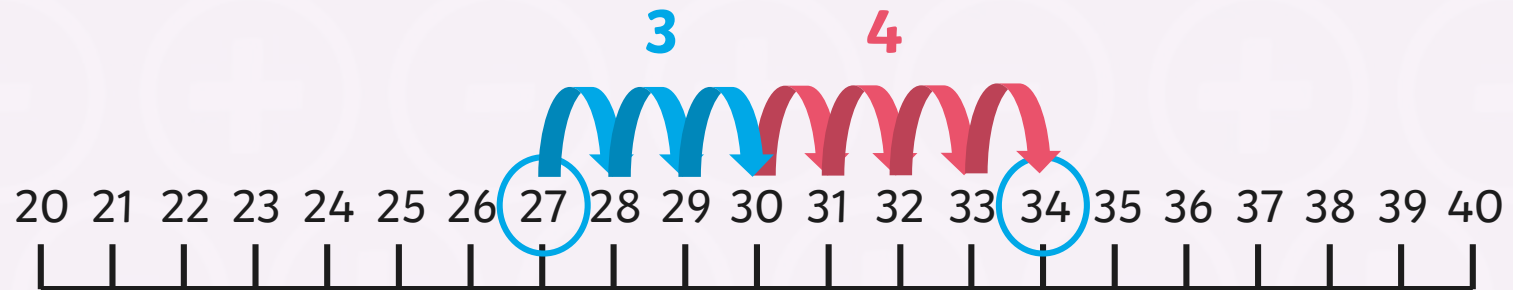
$$8 + 11 = 19$$



Find the Difference



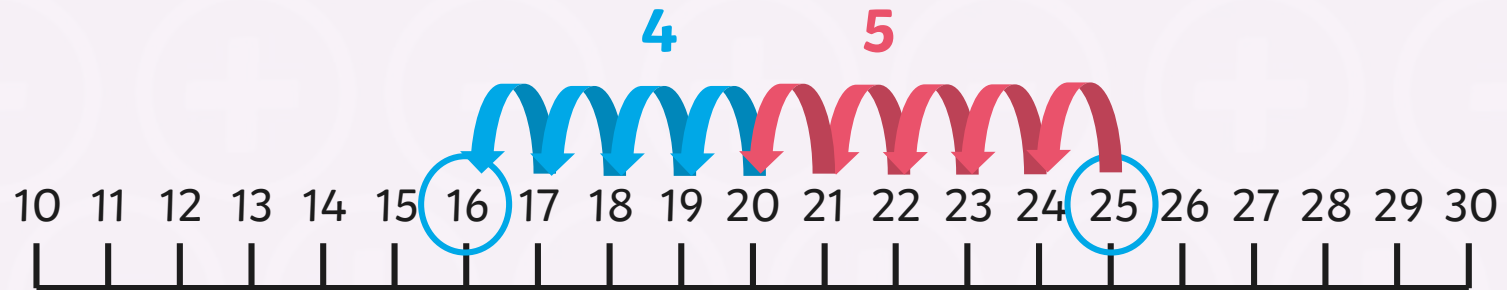
$$27 + 7 = 34$$



Find the Difference



$$25 - 9 = 16$$



Making Sense



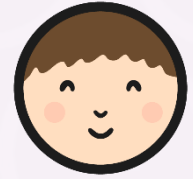
Check with equipment.

Does $19 - 11 = 8$? ✓

Does $19 - 8 = 11$? ✓

0 1 20

A Muddy Mess




A Muddy Mess

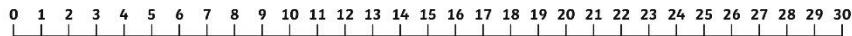
I can use inverse relationships to solve missing number problems.

Ben has splashed mud on his work again!


Use inverses to help uncover the muddy numbers. Use equipment to check that your answer makes sense and draw the jumps on the number line.

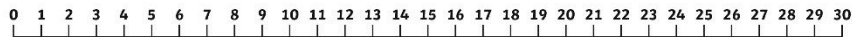
1. $16 + \text{muddy} = 23$

23	
16	



2. $30 - \text{muddy} = 22$

30	
22	



Maths | Year 2 | Addition and Subtraction | Inverse Relationships | Lesson 3 of 3: A Muddy Mess



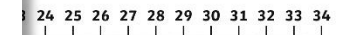
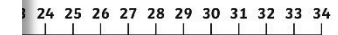
Maths | Year 2 | Addition and Subtraction | Inverse Relationships | Lesson 3 of 3: A Muddy Mess

SS

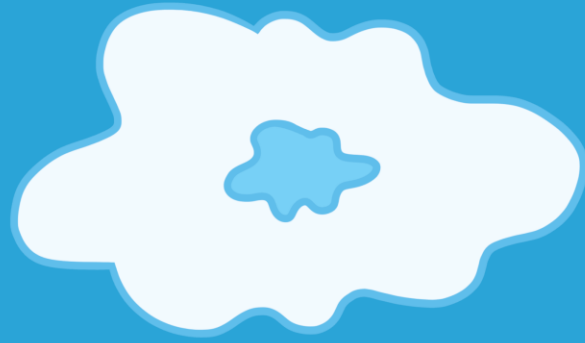
er problems.

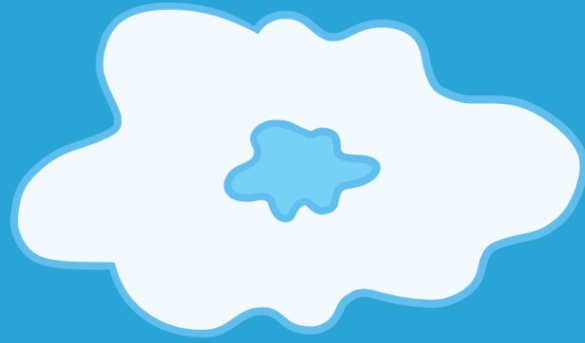
the bar model and draw jumps on the

nt or



2 | Addition and Subtraction | Inverse Relationships | Lesson 3 of 3: A Muddy Mess





Aim



- I can use inverse relationships to solve missing number problems.

Success Criteria

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