

Related Facts

Adult Guidance with Question Prompts



Children make links between addition and subtraction facts within 20. They use ten-frames and bar models to help them visualise the links between a related set of addition and subtraction number bonds. Children could use practical equipment to help with this activity.

If we have six red counters and seven blue counters, what is the total number of counters?

What did you do to work out the answer?

How does a ten-frame help you to work this out?

Can you complete a ten-frame to show $7 + 9$?

What would be the other addition calculation for this ten-frame?

Which two subtraction calculations would go with this ten-frame?

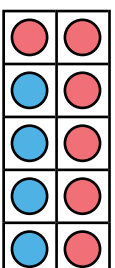
What do you notice about the two numbers we are adding together?

If $14 - 9 = 5$, can we swap the first two numbers and write $9 - 14$? Why not?

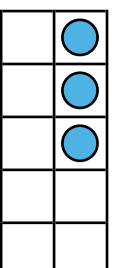
What is the relationship between addition and subtraction?

Can you draw your own bar model and write the calculations for 15, 9 and 6?

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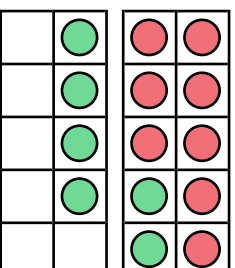
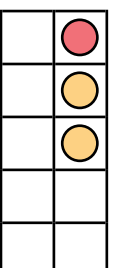
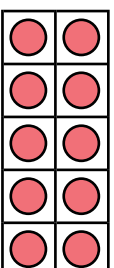


$$\square + 7 = 13 \quad 13 - 6 = \square$$

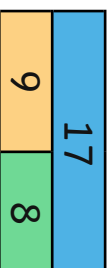


$$\square + 6 = 13 \quad \square - 7 = 6$$

Write 2 additions (+) and 2 subtractions (-) for these ten-frames.



Complete the calculations to match this bar model.



$$\square + \square = 17 \quad \square + \square = 17$$
$$\square - 9 = \square \quad \square - \square = \square$$

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Children make links between addition and subtraction facts within 20. Children investigate whether any set of three numbers can be used to make two addition and two subtraction calculations. Children could use practical equipment to help with this activity.

Look at the calculations for 13, 5, 8, do you see a pattern?

Can you explain it?

If $13 - 8 = 5$, can we swap the 13 and 8 to make another subtraction calculation? Why not?

Which two numbers swap places in the subtraction calculations? Why?

Why can't you write two addition and two subtraction calculations for 18, 9 and 9?

Why can't you write any addition or subtraction calculations for 15, 5 and 6?

Is Tim's statement always, sometimes or never true?

Explain your answer.

Related facts



13, 5, 8

$$5 + 8 = 13$$

$$8 + 5 = 13$$

$$13 - 8 = 5$$

$$13 - 5 = 8$$

I can write
2 addition (+) and
2 subtraction (-)
calculations for any set
of 3 numbers.



Is this always, sometimes
or never true?

Prove it using these
sets of numbers:

17, 5, 12

18, 9, 9

11, 4, 7

15, 5, 6

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Children make links between addition and subtraction facts within 20. They write word problems and draw a pictorial representation for a set of related addition and subtraction facts. Children could use practical equipment to help with this activity.

What pattern do you notice with the addition calculations?

What pattern do you notice with the subtraction calculations?

Why can't you swap the first two numbers in the subtraction calculation?

If we know that $11 + 7 = 18$, which other addition calculation do you know?

Which two subtraction calculations do you know?

Why can't you swap the first two numbers in the subtraction calculation?

What problem can you write to match this calculation?

What picture can you draw to match this calculation?

Related facts



Complete the table.

Problem	Calculation	Picture
There are 7 girls and 9 boys. How many altogether?	$7 + 9 = 16$	
	$9 + 7 = 16$	
	$16 - 7 = 9$	