

Add 2-Digit and 1-Digit Numbers Crossing 10

Adult Guidance with Question Prompts



Children add two-digit and one-digit numbers across ten. They build fluency by making number facts of ten, then adding the remaining part. Children use number lines to complete calculations.

Can you read the calculation?

Where should we start on the number line?

What has been added to make ten?

Five was partitioned into two parts.

We have used four, how many are in the other part?

Make a jump with this number to find the total.

Compare the first calculation ($6 + 5$) with the next ($16 + 5$).

What is the same? What is different?

Where will you start on the number line?

How far will you jump to reach the next ten?

Have you finished the calculation? Can you explain why?

How much more do you need to add?

What total have you made?

Compare this to the total you made by adding $6 + 5$.

Can you explain what has happened and why?

Look at the calculations. Can you complete the first two then continue this number pattern?

Can you describe the pattern to me?

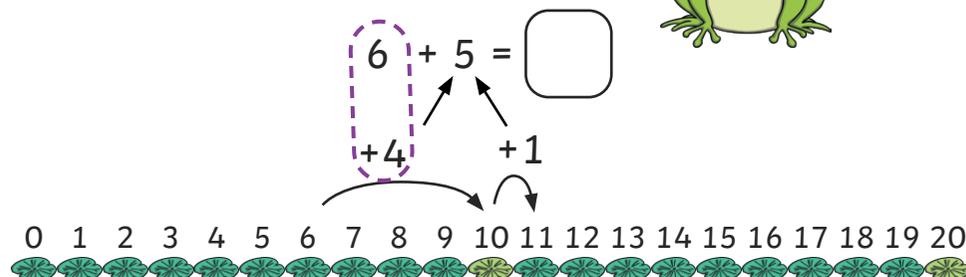
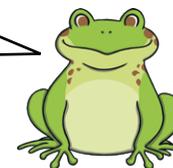
Can you use a number line to show me?

What would come next?

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I made a number fact of ten, then added the other part.



Can you show me how this will help solve $16 + 5$?

Draw the jumps on the number line, then write the total in the box.



$$16 + 5 = \square$$



Can you continue the number pattern?

$$6 + 5 = \square$$

$$16 + 5 = \square$$

$$\square + 5 = \square$$

$$\square + 5 = \square$$

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Children add two-digit and one-digit numbers across ten. They make number facts of ten, then add the remaining part to find the total. Number lines are used to keep track of the calculations. The children apply their reasoning skills to check and correct calculations and statements. Children are invited to demonstrate strategies and explain their reasoning.

Forwards Fred and his friends have made facts of ten by partitioning the second number, then adding the other part.

Can you check the first calculation?

Can you spot any errors? What can he do to correct it?

What does Fred need to practise? (Number facts of ten, especially $8 + 2 = 10$)

Read each speech bubble in turn and decide if they are true or false.

How do you know?

Show me.

What if you didn't have a number line, can you find another way to prove it?

Can you make a true or false challenge for a friend?

Make sure the calculations add a two-digit and one-digit number crossing ten so that your friend can practise using a number line to make a fact of ten, then add the other part.

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I made a number fact of ten, then added the other part.

Fred



$$\begin{array}{r} 8 + 6 = \square \\ +3 \quad +3 \end{array}$$

Can you help Fred check his work and show him what to do?



True or false?

If $8 + 7 = 15$, then then $88 + 7 = 95$.



Fiona

$5 + 6 = 11$ so $35 + 6 = 51$.

Frída



I know $49 + 4 = 54$ because $9 + 4 = 14$.



Fern



Prove if these statements are true or false.

Make a true or false challenge for a friend.

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Children add two-digit and one-digit numbers across ten by making number facts of ten, then adding the remaining part to find the total. Number lines are used to model and check the steps of the calculations. The children apply their problem-solving skills to complete and create balancing calculations.

What is the same about both calculations?

What is different?

Do the two calculations make the same total?

Can you explain how this is shown on the number line?

What does the equals symbol tell us?

(Both sides of the equals symbol should have the same value.)

The calculations on each side of the equal sign should make the same total, but some of the numbers are missing.

What can you do to find the missing numbers?

Do you know a number fact that you could use?

Can you show me how you can use the number line to find the answer?

Look at one pair of calculations at a time.

What can you tell me about the value of each calculation?

Which number fact will help you?

How can you use a number line to find the answer?

Can you make a missing number challenge for your friend to solve?

Make sure that the calculations add a two-digit and a one-digit number crossing a ten.

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Prove that Frank is correct.

I know $4 + 5 = 9$, so $16 + 9$ is the same as $16 + 4 + 5$.



Frank

If $2 + 5 = 7$, then $18 + 7 = 18 + \square + \square$

What can you do to find the missing numbers?



11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Use number facts of ten to complete the calculations.



$$27 + 5 = 27 + \square + \square$$

$$36 + \square = 36 + 4 + 4$$

$$45 + 7 = \square + \square + \square$$

$$59 + \square = \square + \square + 4$$

Make missing number challenges for your friend to solve.