

Diving into Mastery – Diving

Adult Guidance with Question Prompts

Children recognise how number bonds to ten help them to add numbers with a total greater than ten and up to 20. Provide children with number lines and ten-frames for them to see practically how to bridge ten.

How many do you add to the first number to make ten?

How many more do you need to add after getting to ten?

How can you use number bonds to ten to help add numbers?

How many more do you need to add to the ten-frame to make ten?

How many more do you need to put in the second ten-frame?

Would it change the answer if you changed the numbers around? (For example, $5 + 7$ instead of $7 + 5$.)

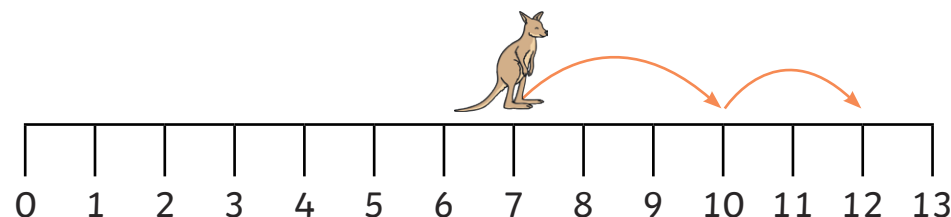
How many do you need to add to one (swap for all other numbers from two to nine) to make ten?

Add by Making 10



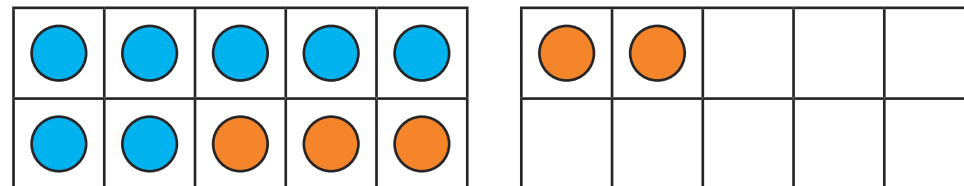
Kangaroo Fred starts on step 7 and wants to jump along 5 more.

First, he jumps 3 steps to 10. Then, he jumps 2 more steps.



$$7 + 5 = 12$$

He checked if he was correct using ten-frames.



Use both a number track and ten-frame to work out the answers to:

$$8 + 4$$

$$6 + 7$$

$$9 + 8$$

$$5 + 9$$

Diving into Mastery – Deeper

Adult Guidance with Question Prompts

Children recognise how number bonds to ten help them to add numbers with a total greater than ten and up to 20. They use a variety of pictorial representations to help them visualise how to bridge ten.

How can you use number bonds to ten to help add numbers?

On the number track, where do you start counting forward from? Why?

How could you use counters in the same way to add numbers where the answer is greater than ten?

Can you use a number line to match the one which doesn't have a partner?

Can you use a part-whole model to match the one which doesn't have a partner?

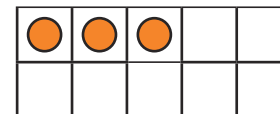
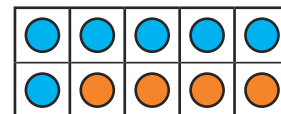
Would it change the answer if you changed the numbers around? (For example, $9 + 8$ instead of $8 + 9$.) Why?

Add by Making 10



Draw lines to match the pairs. One has been done for you. There is one without a partner!

$$8 + 6$$



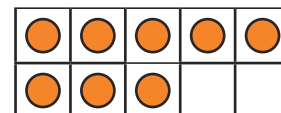
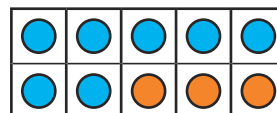
$$5 + 7$$

13

14

$$8 + 9$$

$$5 + 7$$



Can you draw a number line or part-whole model to match the one without a partner?

Diving into Mastery – Deepest

Adult Guidance with Question Prompts

Children recognise how number bonds to ten help them to add numbers with a total greater than ten and up to 20. They recognise ways to solve a word problem where the answer bridges ten.

Why doesn't the first ten-frame use number bonds to ten to help solve the problem?

Why doesn't the second number part-whole model use number bonds to ten to help solve the problem?

Would it change the answer if you changed the numbers around? (For example, $8 + 7$ instead of $7 + 8$.) What do you know about the order of adding numbers?

Which is easier: using counters and placing them altogether and counting or the ways shown on the card? Why?

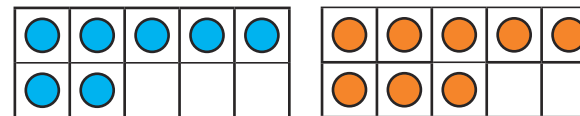
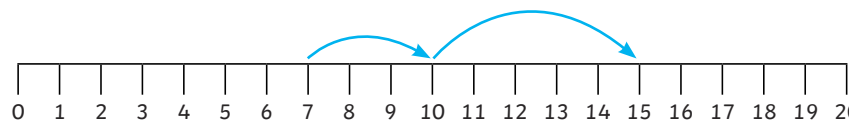
Can you show the answer to your problem using a number line and partitioning?

Add by Making 10



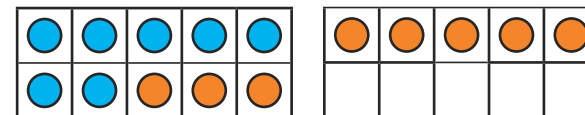
Theo has 7 stickers. His friend gives him 8 more.

Tick the ways that use making 10 to help him work out how many stickers he has.



$$\begin{array}{c} 7 + 8 \\ \swarrow \searrow \\ 3 \quad 5 \end{array}$$

$$\begin{array}{c} 7 + 8 \\ \swarrow \searrow \\ 2 \quad 6 \end{array}$$



Make your own word problem to go with this ten-frame:

