

Diving into Mastery – Diving

Adult Guidance with Question Prompts

Children need to be confident with number bonds to 10, 20 and 100 (tens only). Children may require a hundred square and base ten blocks to help with this.

How many squares are shaded?

How do you know?

How many are in one row/column?

How can we quickly work out how many are unshaded?

Can you represent the number with base ten blocks?

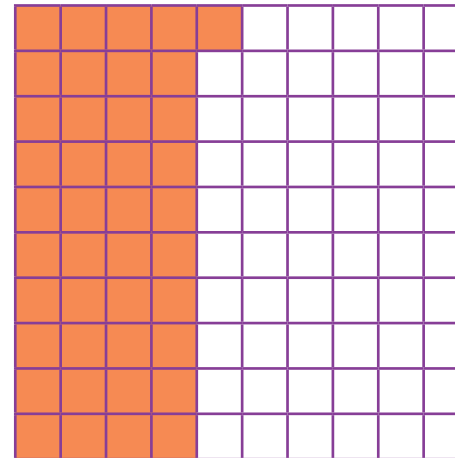
How many more do we need to make 100?

Bonds to 100 - Tens and Ones

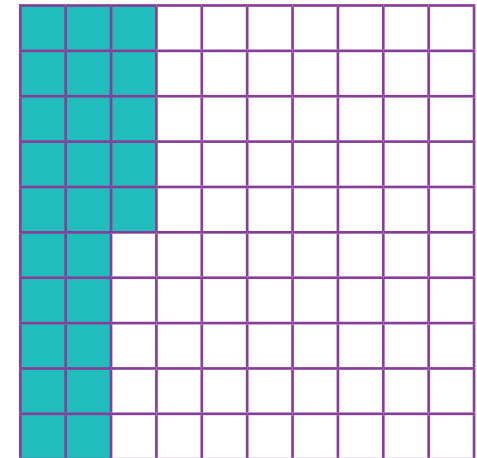


Use the hundred squares to calculate these number bonds to 100.

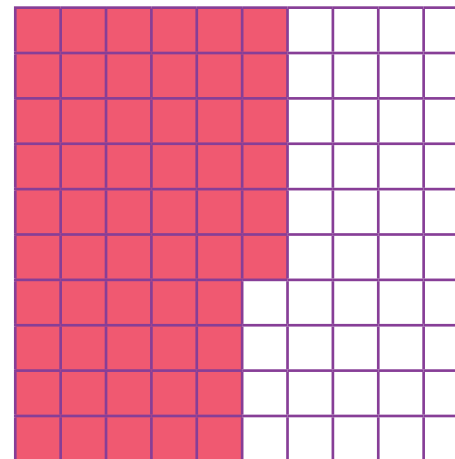
$$41 + \underline{\quad\quad} = 100$$



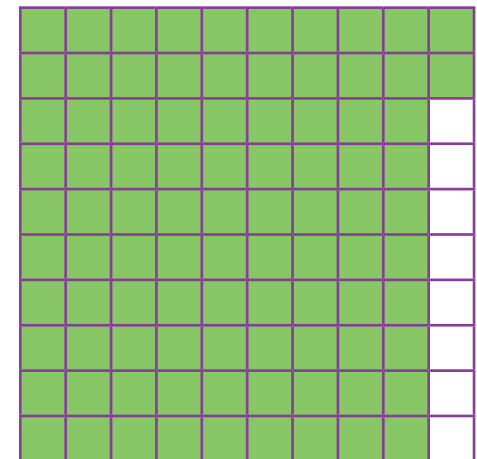
$$\underline{\quad\quad} + 25 = 100$$



$$100 - 56 = \underline{\quad\quad}$$



$$100 - \underline{\quad\quad} = 92$$



Diving into Mastery – Deeper

Adult Guidance with Question Prompts

Children often make the mistake of adding one ten too many. They need to remember the ones must add up to ten and the tens must add up to 90 so that, when the ones and tens are combined, the total is 100. Children could use base ten blocks or a hundred square to help them represent the calculation.

How could we represent this calculation?

Could you use a hundred square/base ten blocks to help you?

Show me how.

How could we check if 76 is the correct answer?

Can you show me what happens when you add 34 and 66?

What mistake has Sam made?

Bonds to 100 - Tens and Ones

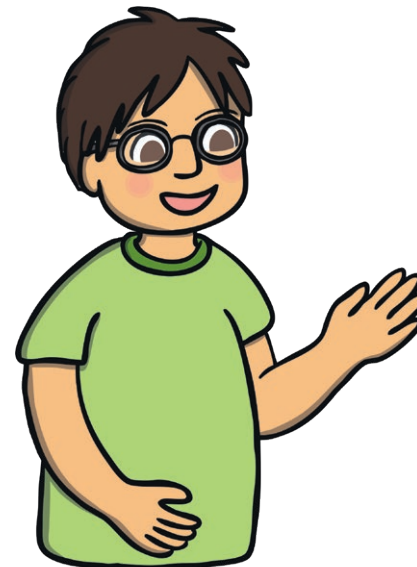


Sam and Ameenah are trying to work out the missing number. Who do you agree with? Explain why.

$$34 + \square = 100$$

The missing number is 76

Sam



The missing number is 66

Ameenah



Diving into Mastery – Deepest

Adult Guidance with Question Prompts

Children should be encouraged to work systematically to find all the possible solutions. They should quickly realise that the first number will always need to have one in the ones column for it to add to a number with nine ones to make ten.

How can you work systematically to find all the answers?

What will you start with?

How many ones will the number need to have?

Why?

Will that always be true?

How do you know?

What will the total of the tens be?

Why?

Have you found all the ways?

How can you be sure?

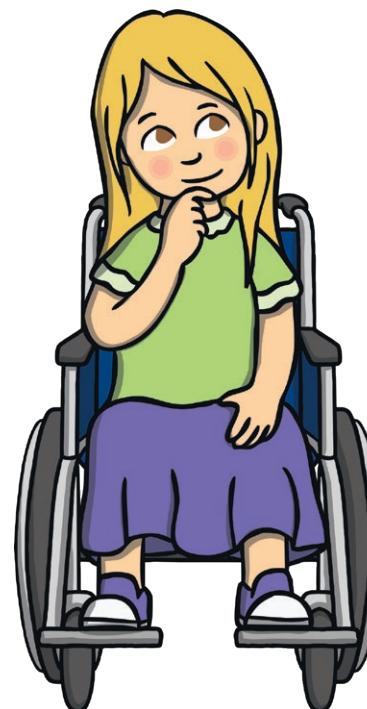
Can you explain all the patterns you can see in these calculations?

Bonds to 100 - Tens and Ones



Complete this number bond to 100
using the digits 1 to 9.

$$\square\square + \square 9 = 100$$



How many different
ways can you find?

What patterns can
you spot?

Explain the patterns.