Diving into Mastery – Diving

Adult Guidance with Question Prompts

Children use number bonds, place value knowledge, partitioning and counting skills to subtract. Children will need a ten-frame and nine counters.

Where should Jill start her jump?

Which way will she jump – forwards or backwards?

Why do you think that?

Can you use your ten-frame and counters to partition nine so that the first jump will land on a multiple of ten?

Which multiple of ten comes before 37?

Where has Jill landed?

Subtract 1 Digit from 2 Digits

Show Jump Back Jill how she could subtract on these number lines. Remember to land on a multiple of 10 first.

37 – 9

25 26 27 28 29 **30** 31 32 33 34 35 36 37 38 39 40

63 – 6

50 51 52 53 54 55 56 57 58 59 **60** 61 62 63 64 65

54 – 7

40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55

81 – 5

70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85

Diving into Mastery – Deeper

Adult Guidance with Question Prompts

Children use the strategies they are now fluent with to check subtraction calculations. They use mathematical language to explain whether they are right or wrong and how they know. For the incorrect calculations, the children may be able to spot the mistake that has been made – for example, adding instead of subtracting, or subtracting too much. Children may need ten-frames, counters and number lines to check the calculations.

How can you tell if the calculation is correct?

What strategies could you use?

Can you convince me it is correct?

Can you prove it is wrong?

Where do you think Ben has gone wrong?

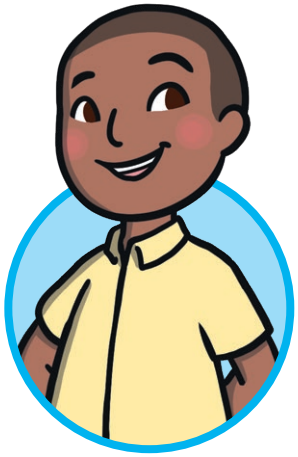
Can you find the correct answer?

Was Anna right when she spotted three mistakes?

How many mistakes did Ben make?

Subtract 1 Digit from 2 Digits

Ben has been subtracting 1-digit numbers.



45 – 8 = 37

72 – 4 = 76

31 – 6 = 24

94 – 7 = 87

26 – 9 = 17

I think you have got 3 of them wrong.

Do you agree with Anna? Prove it.
Correct any mistakes Ben has made.

Diving into Mastery – Deepest

Adult Guidance with Question Prompts

Children solve a 'find all possibilities' problem. Encourage systematic working and use of number line and practical equipment as necessary.

What is the smallest digit that could go in the ones column next to the five tens?

Which number are we counting back to on the number line every time?

Can you show me on the number line how to count back from 50 to 48?

How many did you subtract?

What is the next number that we could try after 50?

How could we work this out sensibly so we don't miss any numbers out?

Do you think you have found all the combinations? Prove it.

How many ways did you find?

Compare the calculations you have written to someone else's. Are they the same?

Are there any different ones?

Subtract 1 Digit from 2 Digits

Investigate which digits are missing from this calculation:

$5\square - \square = 48$

Use a number line to help you.

45 46 47 48 49 **50** 51 52 53 54 55 56 57 58 59 60

How many different combinations can you find?