

# Writing down numbers

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*The Busy Lizzie Maths Library*

## Writing down numbers

Kim was writing down some numbers onto a piece of paper. She started to write numbers down starting at 1 and ending at 20.

**1, 2, 3, 4, 5, 6 and 7.**

She carried on writing down the numbers in order. She paused after she had written the 19<sup>th</sup> digit.

What was the last number she wrote down? She started to write her numbers again and stopped at number 20.

How many digits did Kim write down? Find a way to work this out without writing the counting numbers yourself? Explain your thinking to a friend.



Solution: something to think about...

1 2 3 4 5 6

*Kim has written 6 digits*

1 2 3 4 5 6 7 8 9 10

*Kim has written 11 digits*

1 2 3 4 5 6 7 8 9 10 11 12

*Kim has written 15 digits*

## Solution

Numbers 1 to 9 are all single digit numbers

Numbers from 10 to 20 are all two-digit numbers

Kim wrote down 19 digits and then paused. 9 of the digits are single digit numbers. 10 digits are left, so counting on 5 times in 2s from 9 will take me to the 5<sup>th</sup> number after 9 which is 14.

For numbers to 20

1 to 9 = 9 digits

10 to 20 is  $2 \times 11 = 22$  digits

$22 + 9 = 31$ , total 31 digits