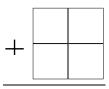Think of a two digit number and write it down.

Reverse the digits and add your answer to your original number.

$+$

Try a few examples.

Do you notice anything interesting?

Do you think this always happens?
Can you explain why?

Here are some similar number tricks.
Can you explain how they work?

- Take any two-digit number. Reverse the digits, and subtract your answer from your original number. What do you notice?

- Take any two-digit number. Add its digits, and subtract your answer from your original number. What do you notice?

- Take any three-digit number. Reverse the digits, and subtract your answer from your original number. What do you notice?

- Take any five-digit number. Reverse the digits, and subtract your answer from your original number. What do you notice?