Link to problem: https://nrich.maths.org/5651

## Secret Number

This is a game for two players and a simple calculator.

Annie and Ben are playing. Annie puts her secret number into the calculator without showing Ben.

Annie then asks Ben, "What do you want to add?"

Ben tells Annie the number he wants to add. "I want to add four."

Annie presses the 'add' button and then the four button. The calculator now shows '4'. Annie gives the calculator to Ben.

7 8 9 💶
4 5 6 X
11 2 3 🗈

Ben presses the 'equals' button and the calculator gives the answer '10'.

	10		
7	8	9	•
	5	6	x
	2	3	æ
	0	۲	•

What was Annie's secret number? How do you know? You could play this with a friend. If you work out your friend's secret number correctly, it is your turn to put in a secret number of your own. You could score a point for every one you get right.

Hint: Think about your fact family work and how addition and subtraction link together. I have included a number line to help you work out secret numbers. Please only work with numbers up to 20.

If you add to a number on the calculator, to find the secret number you will have to use a take away on the number line to discover the answer. You will have to do the opposite to this if you take away on the calculator. E.g. if I add 5 to my secret number and I get the answer 12. I would start on 12 on the number and take 5 away to find the secret number I started with.

If you do not have a calculator, here is a link to one: <u>https://www.online-calculator.com/</u>



## Answers:

The answer to the question asked in the problem:

The answer is 6 because 10 take away 4 equals 6. Or we can say 4 plus 6 equals 10

There are no answers to this problem as it is endless and it depends on the numbers you choose for the calculator.