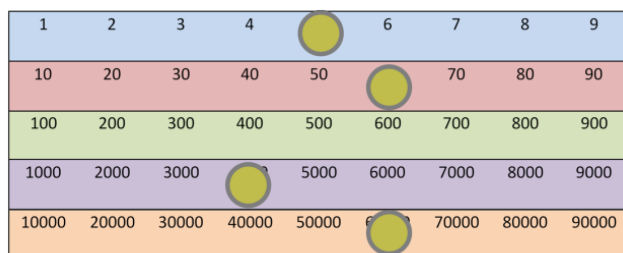


# Add More than 4-digits

## Reasoning and Problem Solving

Amir is discovering numbers on a Gattegno chart.

He makes this number.



Amir moves one counter three spaces on a horizontal line to create a new number.

When he adds this to his original number he gets 131,130

Which counter did he move?

Work out the missing numbers.

	?	4	?	3	?
+	2	?	5	?	2
	7	8	5	2	9

## Subtract More than 4-digits

### Reasoning and Problem Solving

Eva makes a 5-digit number.

Mo makes a 4-digit number.

The difference between their numbers is 3,465

What could their numbers be?

Rosie completes this subtraction incorrectly.

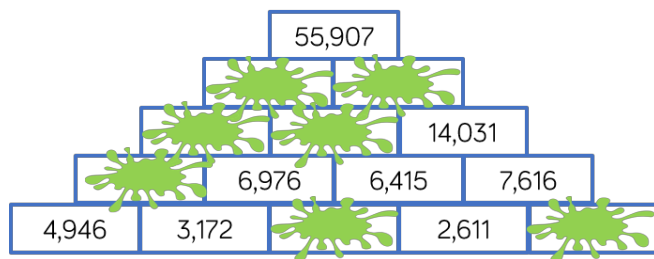
$$\begin{array}{r} 28701 \\ - 7621 \\ \hline 21180 \end{array}$$

Explain the mistake to Rosie and correct it for her.

## Inverse Operations

### Reasoning and Problem Solving

Complete the pyramid using addition and subtraction.



Mo, Whitney, Teddy and Eva collect marbles.



Mo

I have 1,648 marbles.

I have double the amount of marbles Mo has.



Whitney



Teddy

I have half the amount of marbles Mo has.

In total they have 8,524 marbles between them.

How many does Eva have?

## Multi-step Problems

### Reasoning and Problem Solving

A milkman has 250 bottles of milk.

He collects another 160 from the dairy, and delivers 375 during the day.

How many does he have left?



Tommy

My method:

$$375 - 250 = 125$$

$$125 + 160 = 285$$

Do you agree with Tommy?  
Explain why.

On Monday, Whitney was paid £114

On Tuesday, she was paid £27 more than on Monday.

On Wednesday, she was paid £27 less than on Monday.

How much was Whitney paid in total?

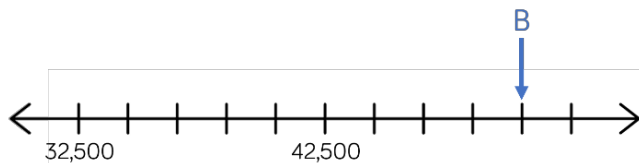
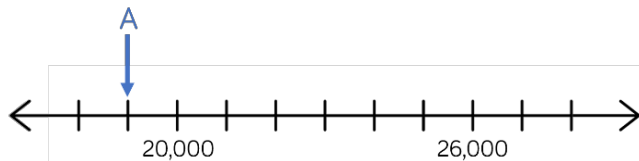
How many calculations did you do?

Is there a more efficient method?

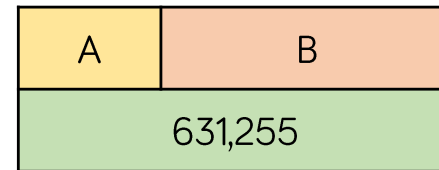
## Add & Subtract Integers

### Reasoning and Problem Solving

Find the difference between A and B.



Here is a bar model.



A is an odd number which rounds to 100,000 to the nearest ten thousand. It has a digit total of 30

B is an even number which rounds to 500,000 to the nearest hundred thousand. It has a digit total of 10

A and B are multiples of 5.

What are possible values of A and B?

