Let's Add and Subtract

Learning Objective:

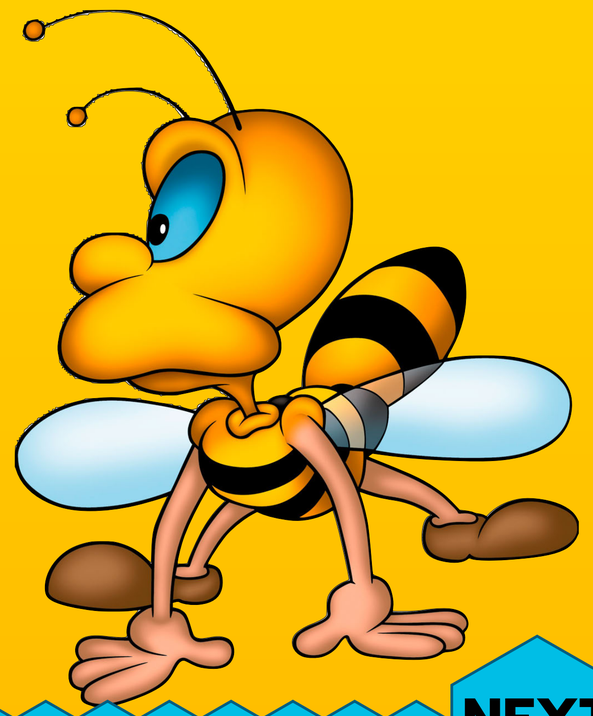
To be able to use the formal column addition method.

NEXT

10 10 10	1 1 1 1
10 10	1 1
10 10 10 10 10	1 1 1 1 1 1

+

Can you explain what this diagram is showing? What calculation does it represent?



10 10 10	1 1 1 1	3 4
+ 10 10	1 1	+ 2 2
10 10 10 10 10	1 1 1 1 1 1	5 6

34 + 22 = 56

Well done if you got that one!

Let's try another one...

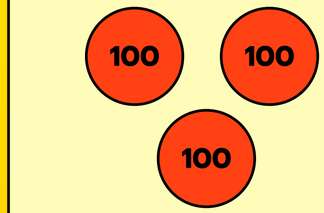
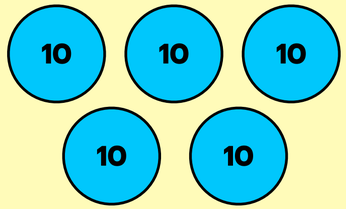
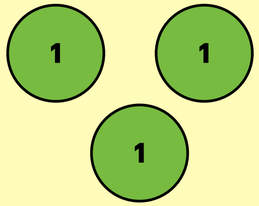
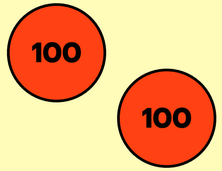
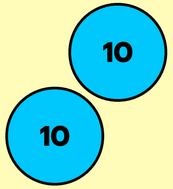
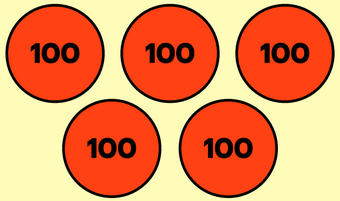
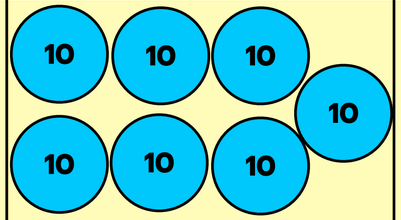
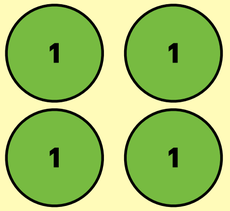
BACK

NEXT

What calculation is this showing?

+

100 100 100	10 10 10 10 10	1 1 1
100 100	10 10	1
100 100 100 100 100	10 10 10 10 10 10 10	1 1 1 1

			
+			
			

3	5	3
2	2	1
5	7	4

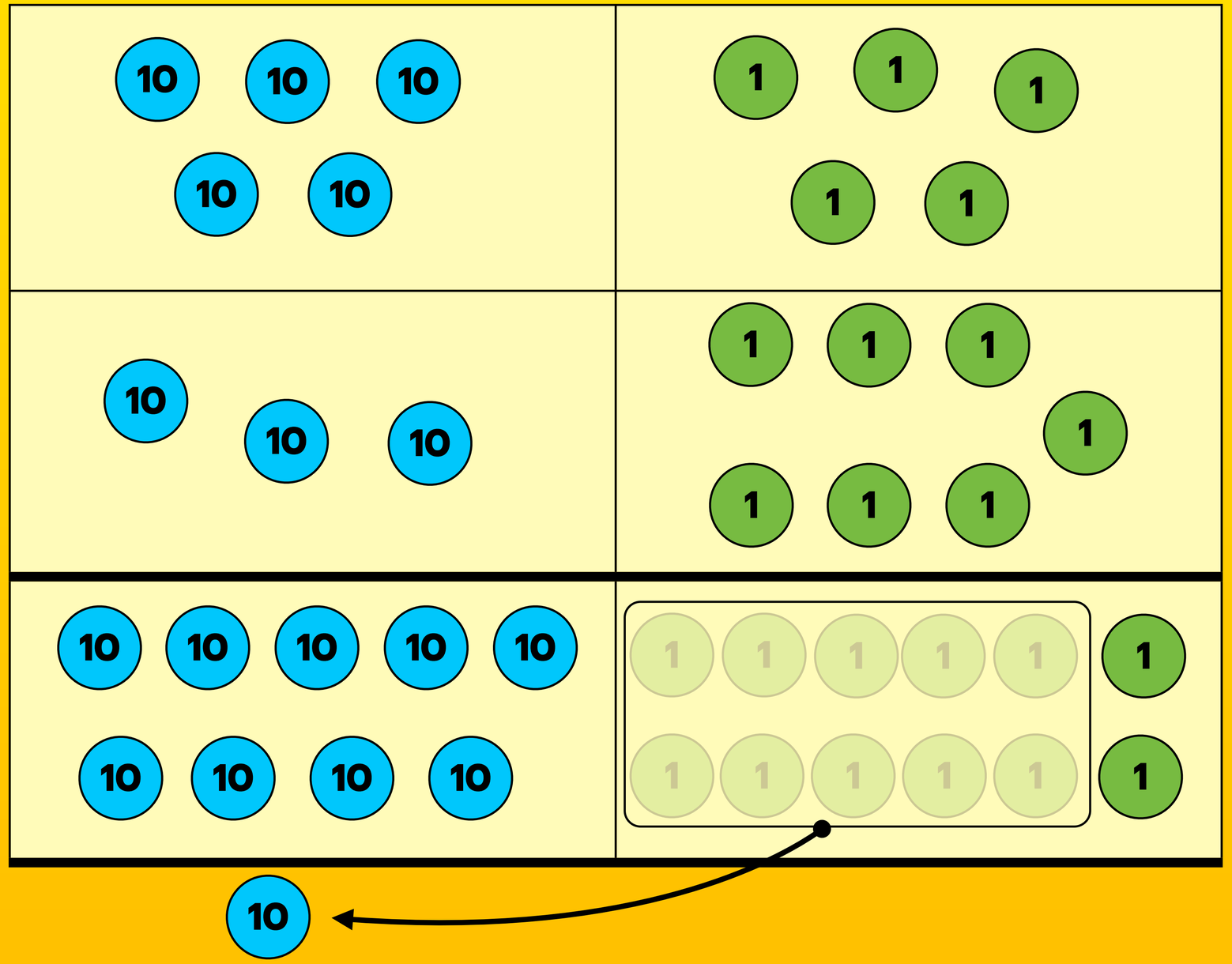
353 + 221 = 574

Did you get that right? How did you work it out?

BACK

NEXT

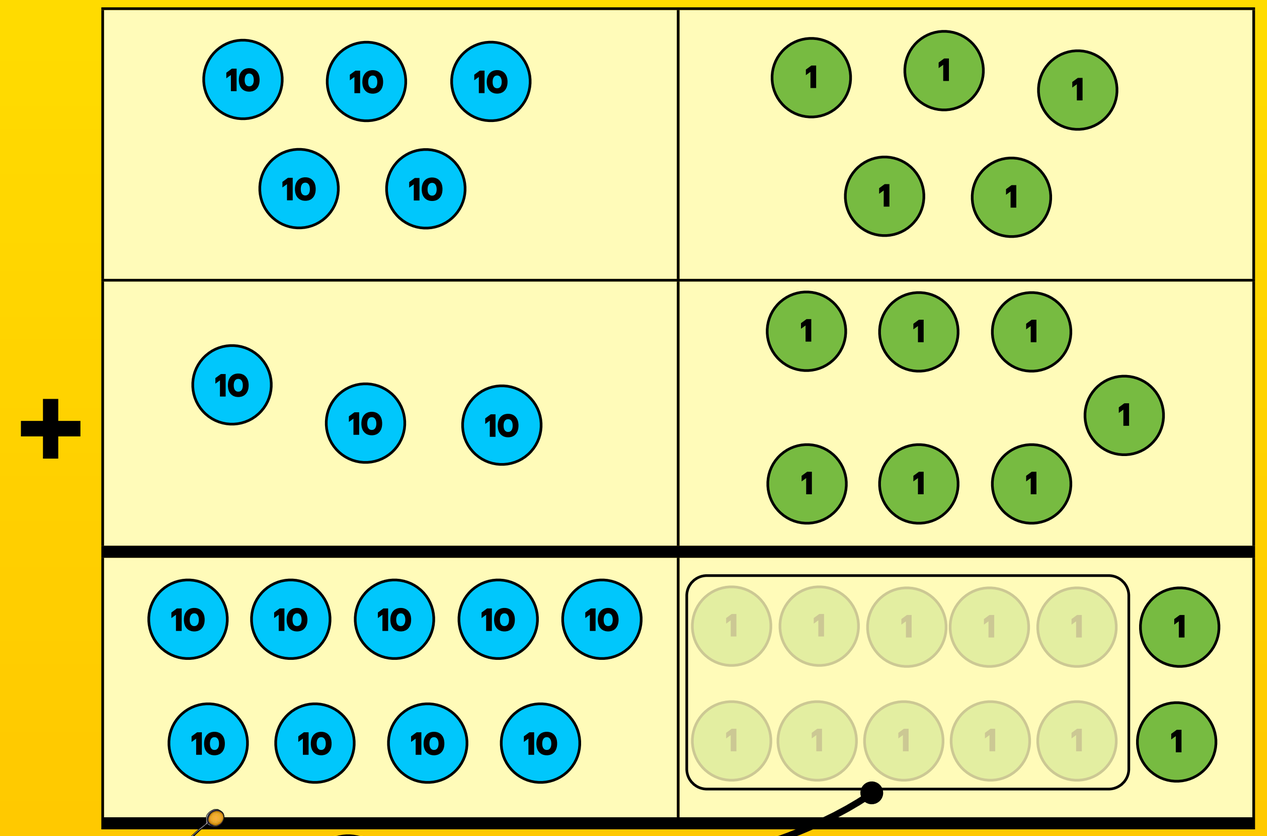
www.planbee.com



Hmm...this one looks complicated! Can you explain what it is showing?

BACK

NEXT



+

5	5
3	7
9	2

+

1

55 + 37 = 92

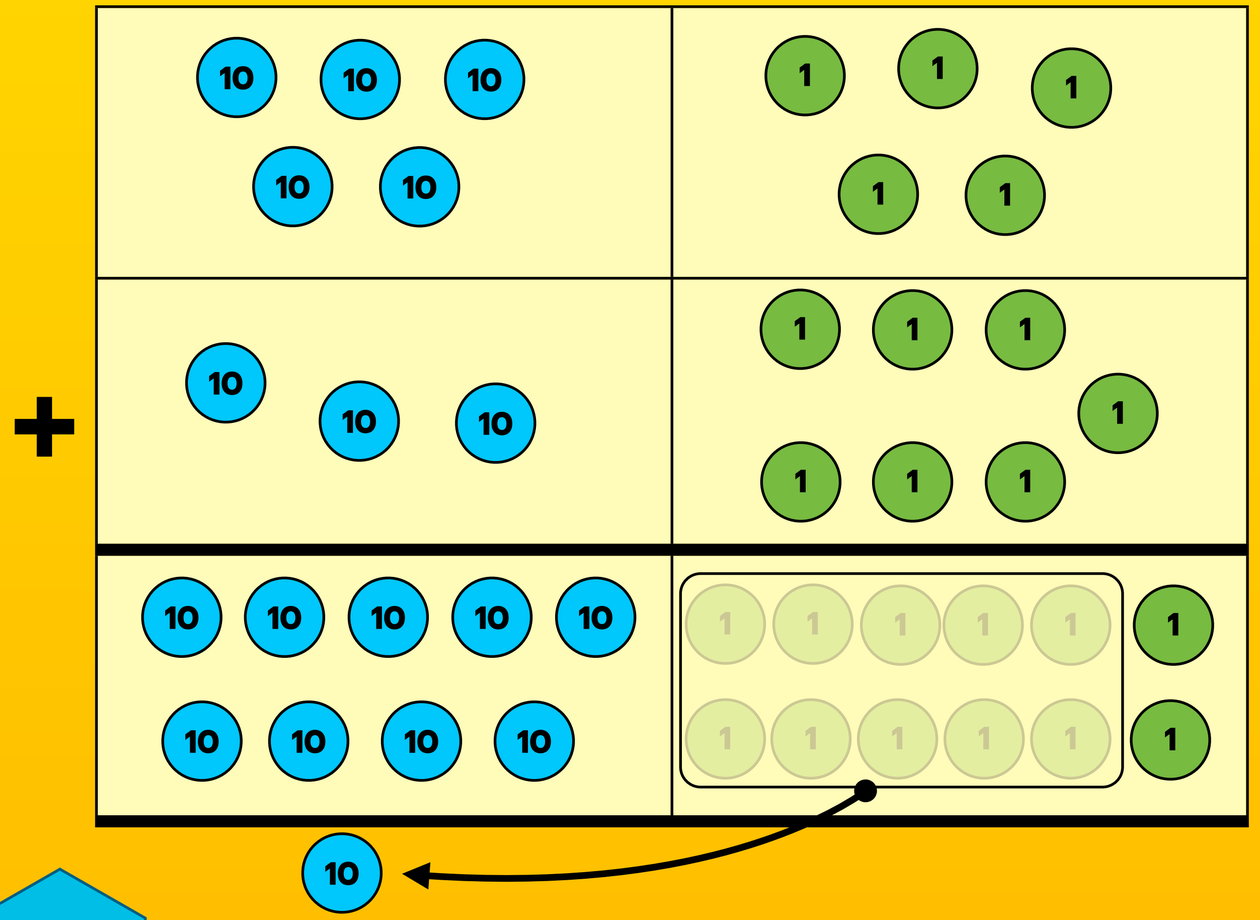
In this calculation, you needed to do some **exchanging**.

Can you explain what that is?

BACK

NEXT

You can only ever have nine or fewer ones in the ones column. This is because **ten ones** are the same as **one ten**, and tens always go in the tens column!



In a calculation like this when we have **twelve ones** in the ones column, we can **exchange** ten of the ones for one ten. We move this across to the tens column to add to all the other tens.

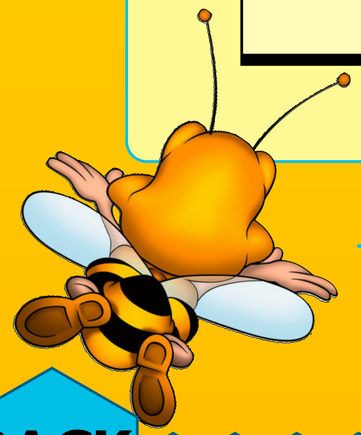
This method of addition is the **formal column method**.

47 + 36 = 713

	4	7
+	3	6
	7	13

47 + 36 = 83

	4	7
+	3	6
	8	3
	1	



Can you tell me which of these calculations is right and which is wrong? How do you know?

BACK

NEXT

Big bee points if you got that right!

47 + 36 = 713

	4	7
+	3	6
	7	13

47 + 36 = 83

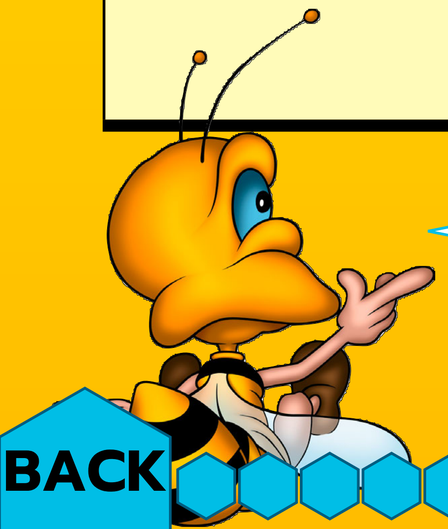
	4	7
+	3	6
	8	3
	1	

Even if we didn't know how this method worked, we can use **estimation** to identify the right answer. 713 is far too big an answer for adding 47 and 36 together!

66 + 29 = ?

10 10 10 10 10 10	1 1 1 1 1 1
+ 10 10	1 1 1 1 1 1 1 1 1

6	6
+ 2	9

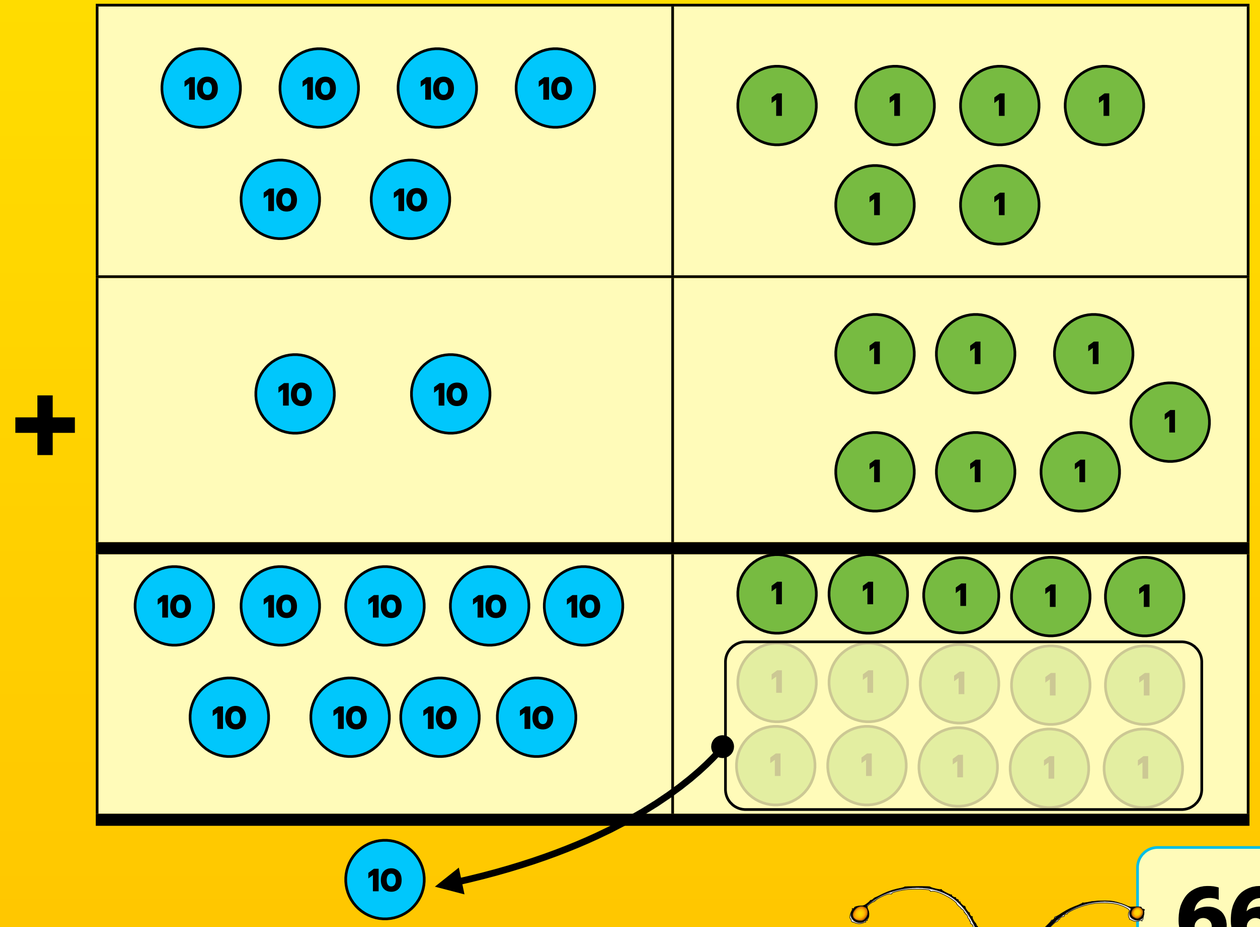


Can you solve this calculation using the formal addition method?

Use estimation to check if you think you're answer is right!

BACK

NEXT



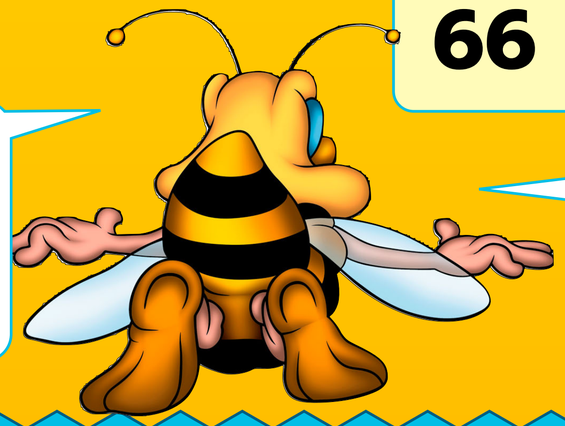
+

6	6
2	9
9	5

1

66 + 29 = 95

Did you get that right?



Can you explain why there is a ‘1’ under the tens column and not ‘10’?

BACK

NEXT

www.planbee.com

254 + 37 = ?

100 100	10 10 10 10 10	1 1 1 1
	10 10 10	1 1 1 1 1 1 1

+

2	5	4
	3	7

See if you can solve this one now! Don’t forget to use estimation to check if your answer seems reasonable!

BACK

NEXT

100 100	10 10 10 10 10	1 1 1 1
	10 10 10	1 1 1 1 1 1 1 1
100 100	10 10 10 10 10 10 10 10 10	1 1 1 1 1 1 1 1 1 1

10

2	5	4
	3	7
2	9	1

1

254 + 37 = 291

Great work! Did you get that right?

BACK

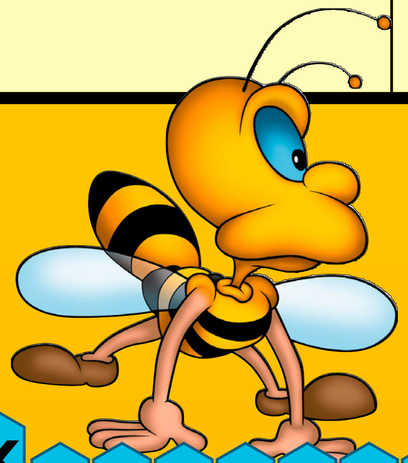
NEXT

www.planbee.com

361 + 65 = ?

100 100 100	10 10 10 10 10 10	1
+	10 10 10 10 10 10	1 1 1 1 1

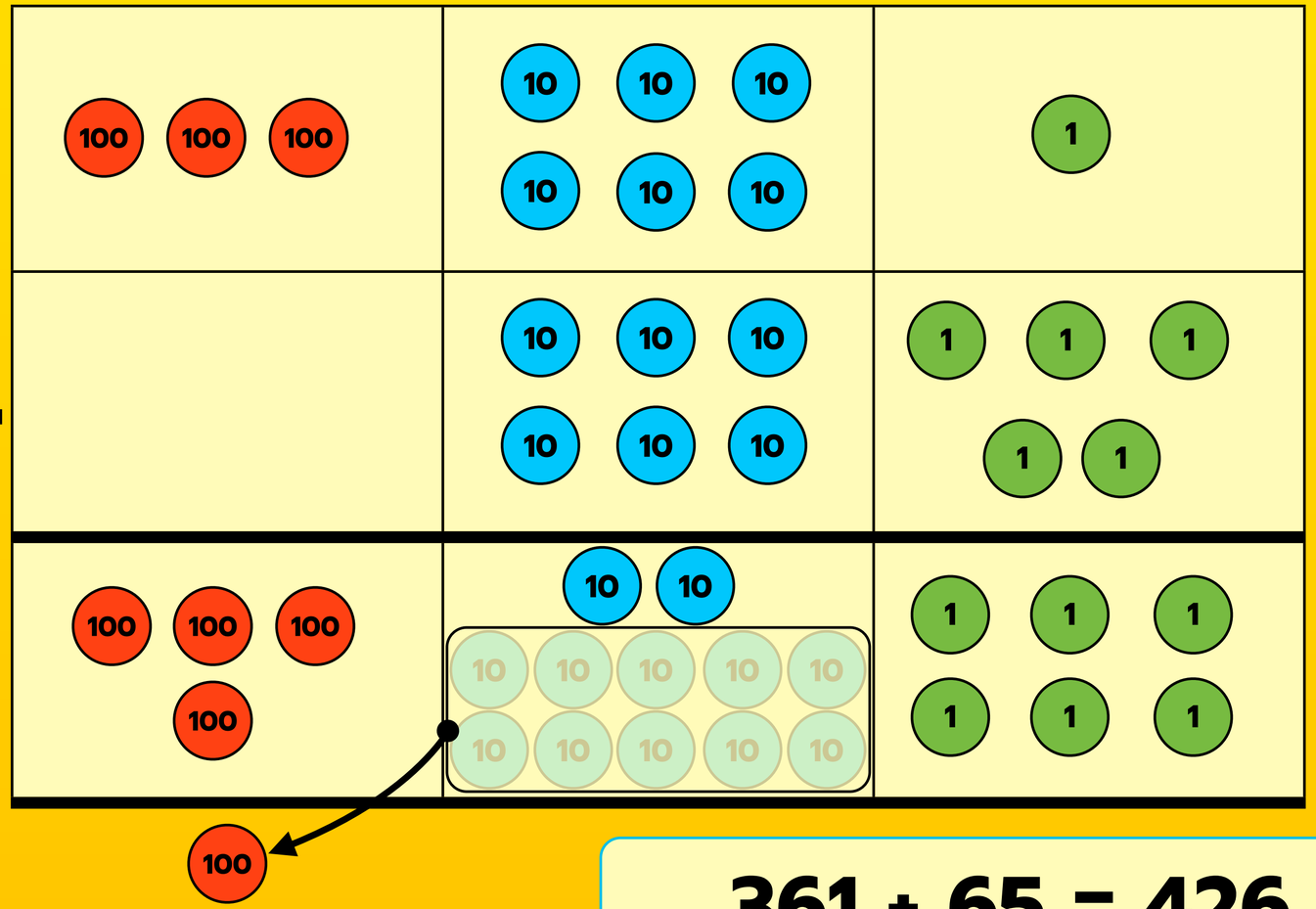
3	6	1
+	6	5



Be careful with this one…you'll need your wits about you! Good luck!

BACK

NEXT



3	6	1
+	6	5
4	2	6

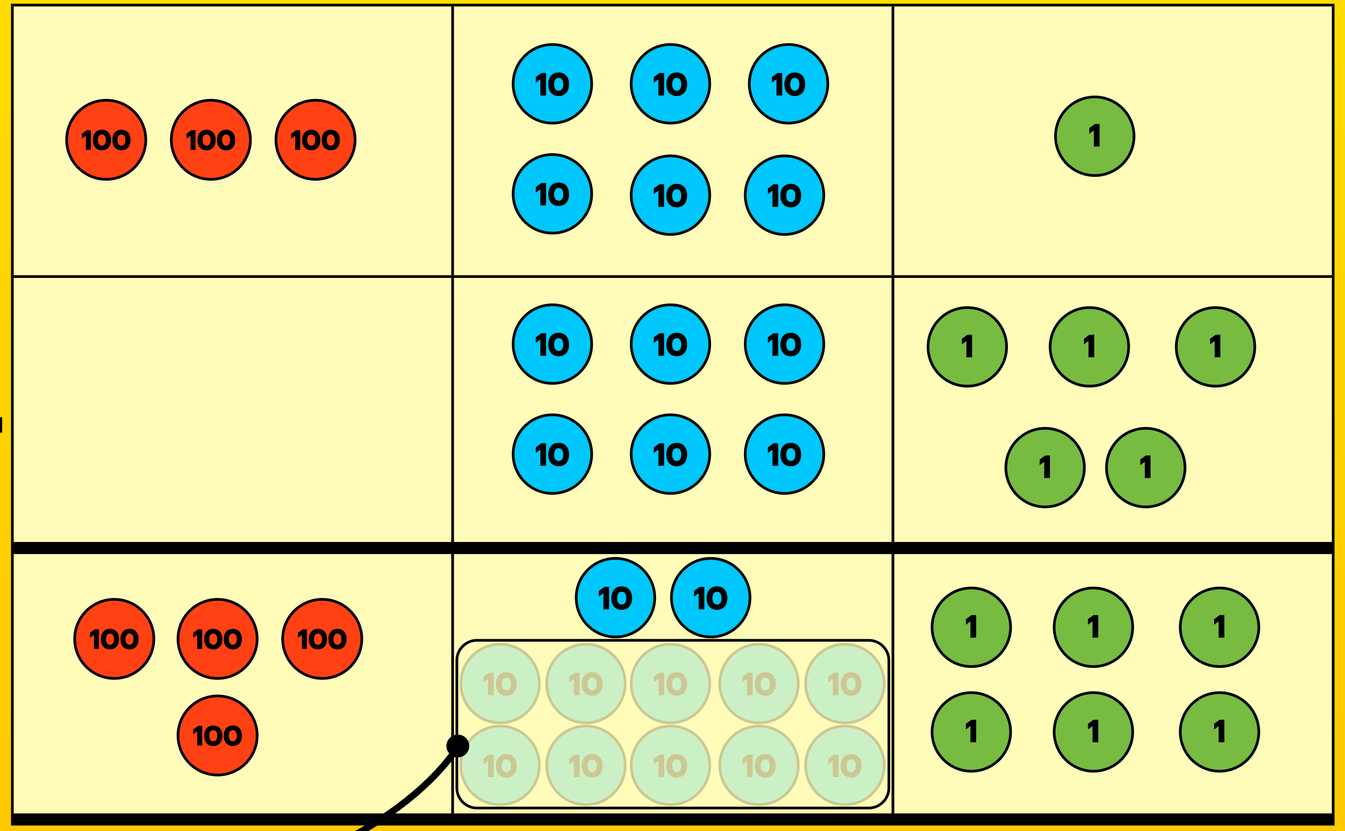
1

361 + 65 = 426

If you got that right...amazing! Can you explain how you did it?

BACK

NEXT



In this calculation, we had to **exchange** ten tens for one hundred. This is because you can't have more than nine tens in the tens column (because ten tens are the same as one hundred!).

Do you understand how exchanging works?

BACK

NEXT

Tricky

64 + 29 = ?

	6	4
+	2	9

Trickier

567 + 72 = ?

5	6	7
+	7	2

Trickiest

384 + 167 = ?

3	8	4
+ 1	6	7

Choose one of these calculations to solve using the formal written method.

BACK

NEXT

Tricky

64 + 29 = 93

	6	4
+	2	9
	9	3
	1	

Trickier

567 + 72 = 639

	5	6	7
+		7	2
	6	3	9
	1		

Trickiest

384 + 167 = 551

	3	8	4
+	1	6	7
	5	5	1
	1	1	

Wow, they were really hard! Did you get your calculation right? If not, can you see where you went wrong?

BACK

www.planbee.com

NEXT

That's enough from me! Are you ready to do some column addition on your own?

Plenary:

Which of these three calculations is correct? How do you know?

475 + 143 = 5118

	4	7	5
+	1	4	3
	5	11	8

475 + 143 = 512

	4	7	5
+	1	4	3
	5	1	2
	1		

475 + 143 = 618

	4	7	5
+	1	4	3
	6	1	8
	1		

BACK

NEXT

475 + 143 = 5118

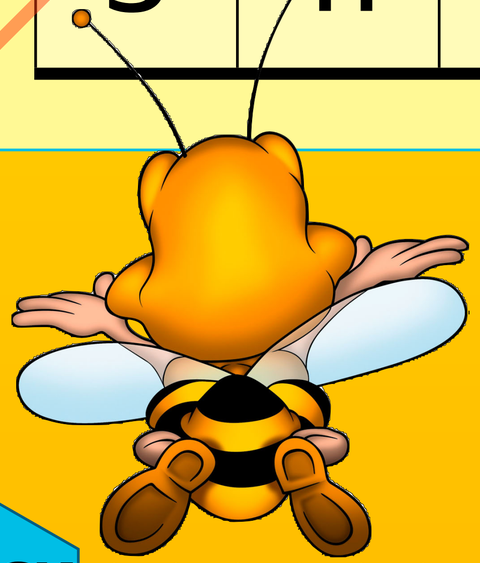
4	7	5
+ 1	4	3
5	11	8

475 + 143 = 512

4	7	5
+ 1	4	3
5	1	2
1		

475 + 143 = 618

4	7	5
+ 1	4	3
6	1	8
1		



Well done if you got that! Which mistakes were made in the two wrong calculations?

BACK

www.planbee.com

NEXT