



# Maths

Addition, Subtraction,  
Multiplication and Division

# Code Busters



# Aim

- I can perform mental calculations with increasingly large numbers.

# Success Criteria

- I can partition numbers, adding the most significant digit first.
- I can add or subtract the nearest multiple of ten or 100 then adjust.
- I can identify near doubles.
- I can multiply or divide using repeated doubling or halving.
- I can form an equivalent calculation to help me find an answer.

# Joins

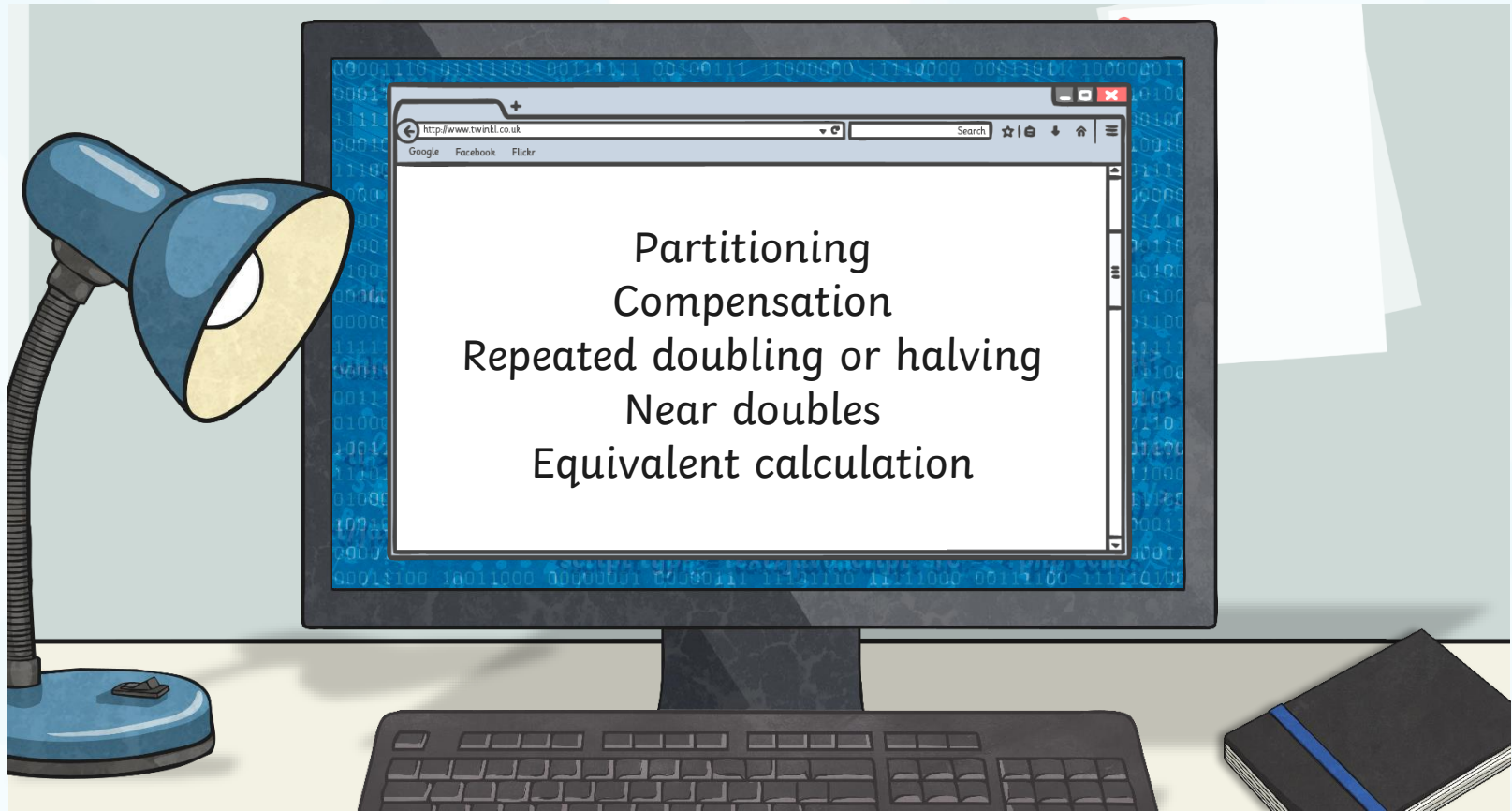


You will need a Joins Activity Sheet.



# Coding

Some calculations we can do in our head mentally. We can write notes to help us remember key numbers while working out the answer.



# Coding

Which strategy will be most useful when completing this calculation?

$$276.4 + 463.7 = 740.1$$

Add the hundreds first:  
To make this easier to work out, we can use the method of partitioning.  
Then add the tens.

$$676.4 + 60 = 736.4$$

This involves partitioning into hundreds, tens, ones and tenths,  
adding the hundreds first.

Lastly, add the tenths.

$$739.4 + 0.7 = 740.1$$

The answer is 740.1



# Coding

Which strategy will be most useful when completing this calculation?

$$874 - 341.5 = 532.5$$

Subtract the hundreds first:  
We can use partitioning when

subtracting.  
Then subtract the tens:

$$574 - 40 = 534$$

This involves partitioning into  
hundreds, ten, ones and tenths,  
Next, subtract the ones:

subtracting the hundreds first.  
Lastly, subtract the tenths.

$$533 - 0.5 = 532.5$$

The answer is 532.5

# Coding

Which strategy will be most useful when completing this calculation?

$$2568 + 57 = 2625$$

Change the explanation method to:  
To make this easier to work out, the nearest multiple of ten to 2568 is 2570. We can use a method called compensation.

We then need to adjust our answer, this involves adding to the nearest multiple of ten or 100 then added to get to 2570. Therefore, we are adjusting. Subtract two from our answer  $2627 - 2 = 2625$ .



# Coding

Which strategy will be most useful when completing this calculation?

$$728 - 209 = 519$$

The nearest multiple of 100 to 209 is 200. This is nine less than 209.

$$728 - 200 = 528$$

We then need to adjust our answer to make up for the nine ones that we did not subtract.

Therefore, we adjust our answer.

$$528 - 9 = 519$$

# Coding

Which strategy will be most useful when completing this calculation?

$$258.7 + 259.6 = 518.3$$

To make this easier to work out, we can use the **double and adjust** method. We then need to adjust, as we needed to add 259 to 258.7. This involves doubling 258.7. Therefore, adjusting 0.9 from our answer.

$$517.4 + 0.9 = 518.3$$

# Coding

Which strategy will be most useful when completing this calculation?

$$14.5 \times 8 = 116$$

$14.5 \times 2$  is the same as double 14.5.

We can double 14.5 = 29.  
If we double this answer, it will be equivalent to  $14.5 \times 4$ .

$$\text{Double } 29 = 58$$

If we double this answer, it will be equivalent to  $14.5 \times 8$ .

$$\text{Double } 58 = 116$$

$$\text{So, } 14.5 \times 8 = 116$$

# Coding

Which strategy will be most useful when completing this calculation?

$$46 \div 4 = 11.5$$

~~We can use the same method halving 46 to solve this calculation.~~

If we halve this answer, it will be equivalent to  $46 \div 4$ .

$$\text{Half of } 23 = 11.5$$

$$\text{So, } 46 \div 4 = 11.5$$

# Coding

Which strategy will be most useful when completing this calculation?

$$25.8 \times 20 = 516$$

We can use equivalent calculations to solve this: doubling, then multiply by 10.

Double 25.8 is 51.6

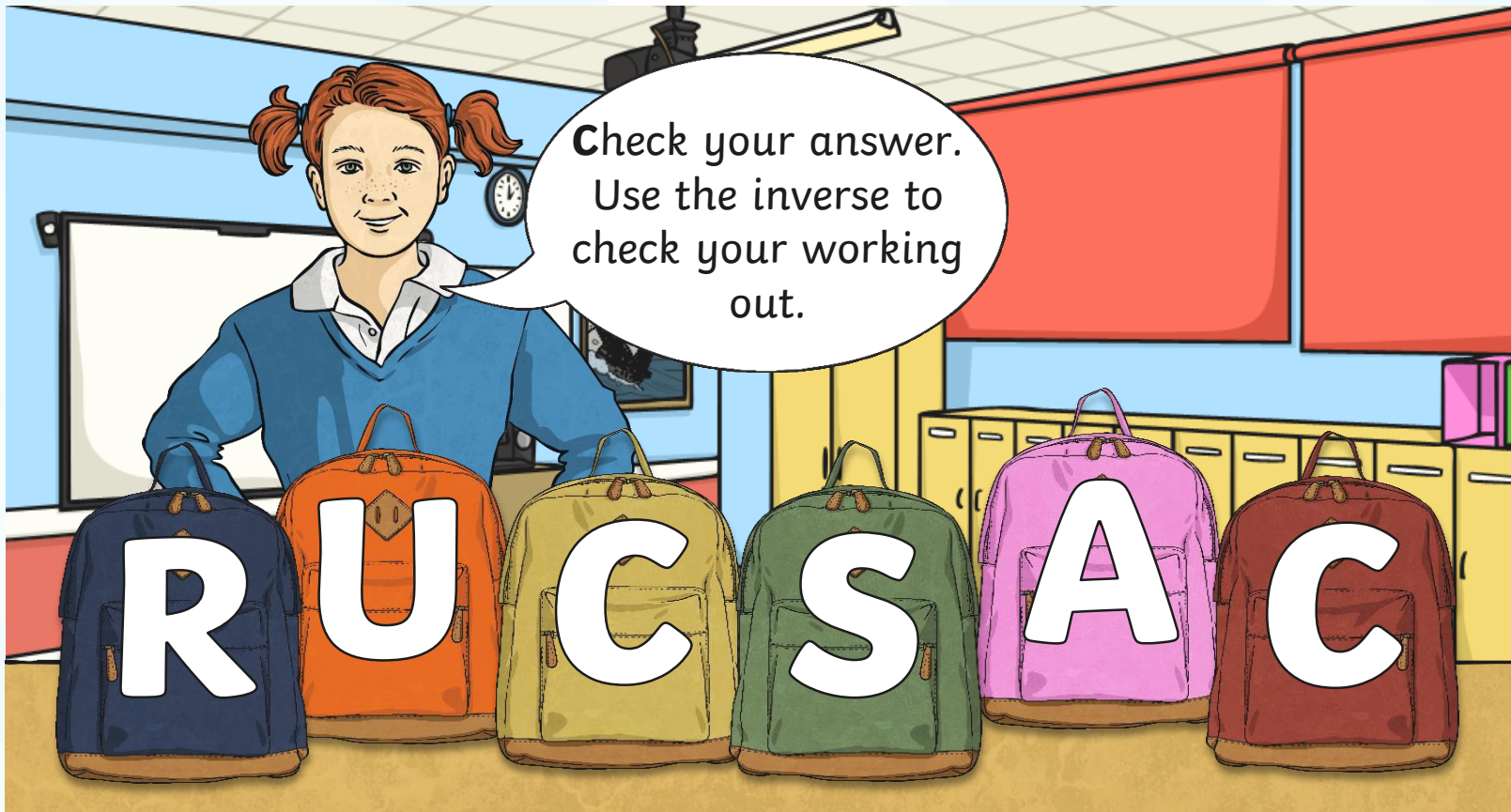
$$51.6 \times 10 = 516$$

$$\text{So } 25.8 \times 20 = 516$$



# Coding

We are going to use some of the mental strategies to help us solve word problems. What have you got in your RUCSAC to solve word problems?





# Coding

4297 people attended a football match. The previous week, 9510 people attended a football match. What is the difference in attendance figures for the two weeks?

How can you check your calculation?

# Coding

4297 people attended a football match. The previous week, 9510 people attended a football match. What is the difference in attendance figures for the two weeks?

Lastly, we need to check our answer.  
What strategy could we use to check our answer?

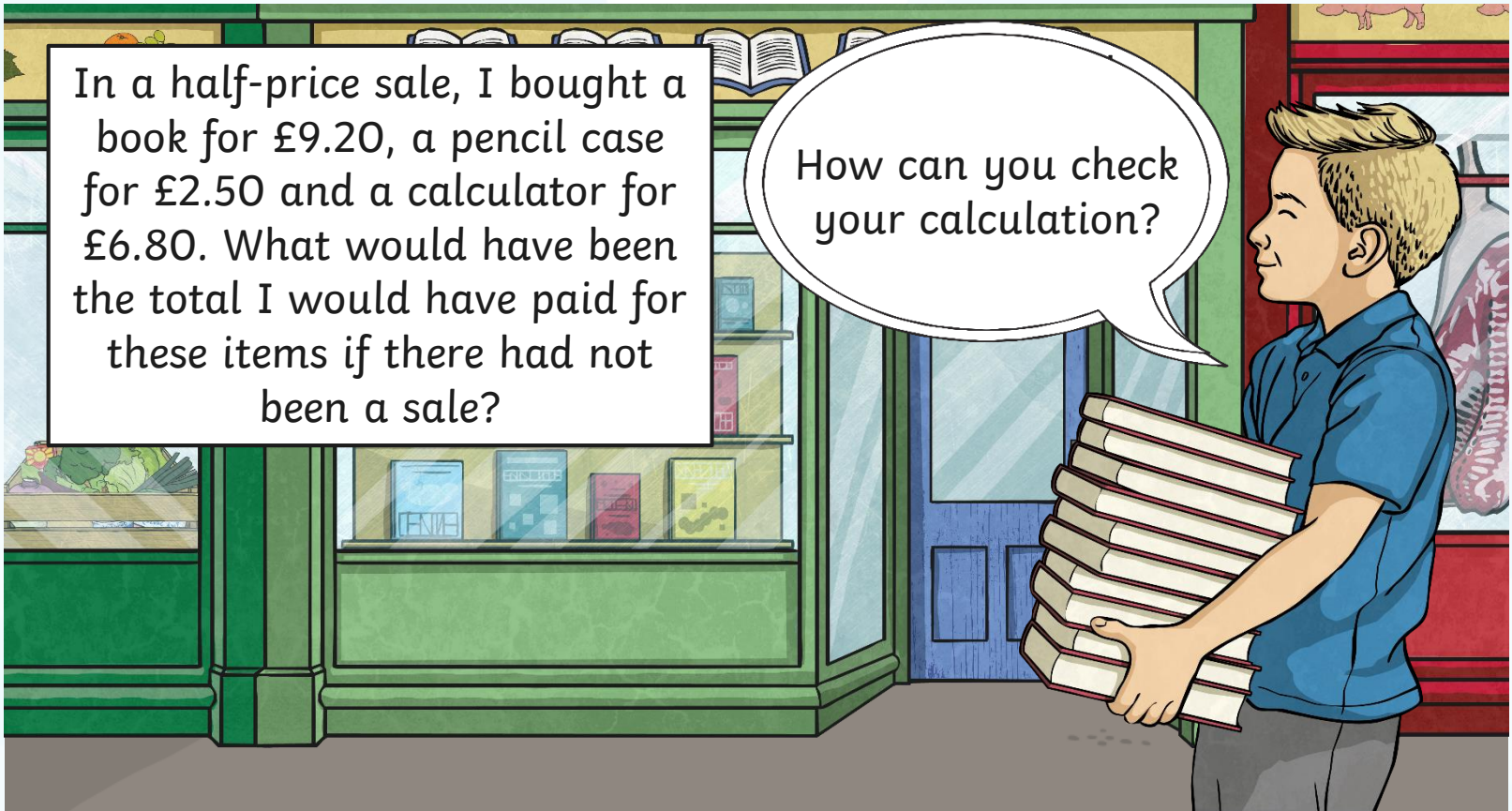




# Coding

In a half-price sale, I bought a book for £9.20, a pencil case for £2.50 and a calculator for £6.80. What would have been the total I would have paid for these items if there had not been a sale?

How can you check your calculation?



# Coding

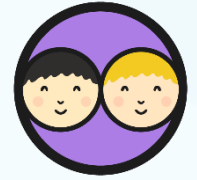
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What strategy could we use to check our answer?





# I Ain't Afraid of No Code



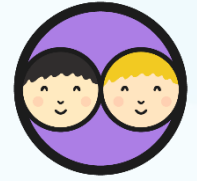
Match the problem to the coded answer.

$\pi$ 1	$\Delta$ 6	$\Pi$ 3	$\Omega$ 5	$\Sigma$ 7
$\pi \Pi \Sigma$				

Tobias buys a scooter priced £98 and some trainers priced £37. How much will it cost altogether?

Rosie has £150. She spends £13. How much does she have left?

# I Ain't Afraid of No Code



Match the problem to the coded answer.

$\pi$ 1	$\Delta$ 6	$\Pi$ 3	$\Omega$ 5	$\Sigma$ 7
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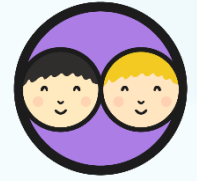
$\Sigma \Sigma$

I bought a drink costing 68p and a chocolate bar costing 86p. When I got to the till, I was told that there was a 50% sale that day. How much did I spend?

Malik has £2. He bought a candy snack priced £0.72 and a drink priced £0.53. How much change will he receive?



# I Ain't Afraid of No Code



Match the problem to the coded answer.

$\pi$ 1	$\Delta$ 6	$\Pi$ 3	$\Omega$ 5	$\Sigma$ 7
$\Pi \Delta$				

Stickers costs seven pence each. How much would it cost for five stickers?

Helen has 72 sweets. She shares them equally with her friend. How many sweets do they have each?

# Code Busters



You will be completing a range of questions that will require you to perform mental calculations and solve word problems.

**Code Busters**

I can perform mental calculations with increasingly large numbers.

Draw a line to match each word problem to the corresponding answer in code.

$\Delta$	$\Omega$	$\mu$	$\pi$	$\infty$	$\Pi$	$\Sigma$	$\sqrt{\quad}$	$\diamond$	$\ddagger$
0	1	2	3	4	5	6	7	8	9

6837 people attended a tennis match. The previous week, 9528 people attended a tennis match. What is the difference in attendance figures for the two weeks?

A polo team is made up of four players. If 108 children turn up to a polo tournament, how many full teams could you make?

Oranges are priced 63p each. How much would it cost for eight oranges in pence?

Mary's favourite chocolates in the selection box are truffles. For every two truffles in a box, there are four toffees. If the box contains 34 toffees, how many truffles will there be?

Rikard buys a laptop priced £648 and a printer priced £297. How much will it cost altogether?

69 bags of sweets  
bags of sweets v

A season ticket  
How much wou

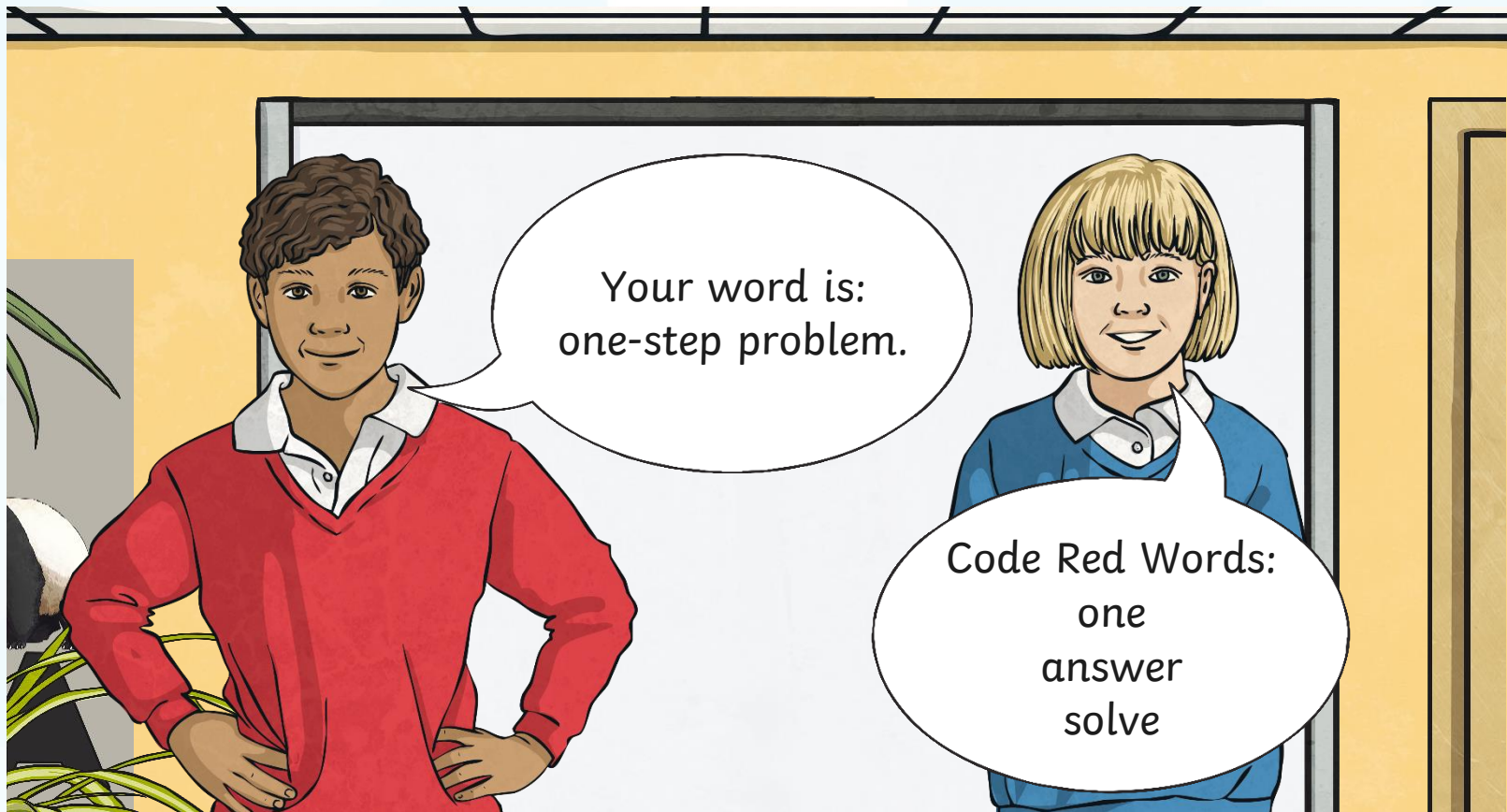
I have read 139  
How many pag  
book?

After answering the questions, you will find the corresponding answer that is written in code.

# Code Red



Can you describe a word from the lesson without using any code red words?





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