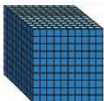
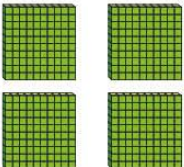



Subtract two 4-digit numbers – more than one exchange

I Kim has made a number using base 10

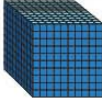
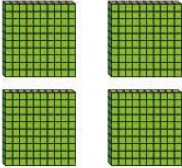

| Th | H | T | O |
|---|---|---|---|
|  |  | |  |

What number has she made?





Kim has made a number using base 10

| Th | H | T | O |
|---|---|---|---|
|  |  | |  |

Did you get **1403**?

How would we subtract 7 from 1403?


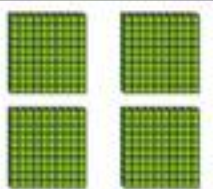

$$1403 - 7 = ?$$



I a) $1403 - 7 = ?$

We can't subtract 7 from 3 ones but there are no tens to exchange.


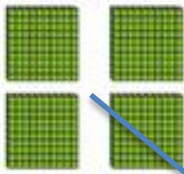
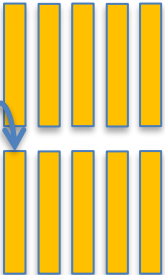

What can we do?

| Th | H | T | O |
|---|---|---|---|
|  |  | |  |

I a) $1403 - 7 = ?$

First, we exchange a hundred for 10 tens.

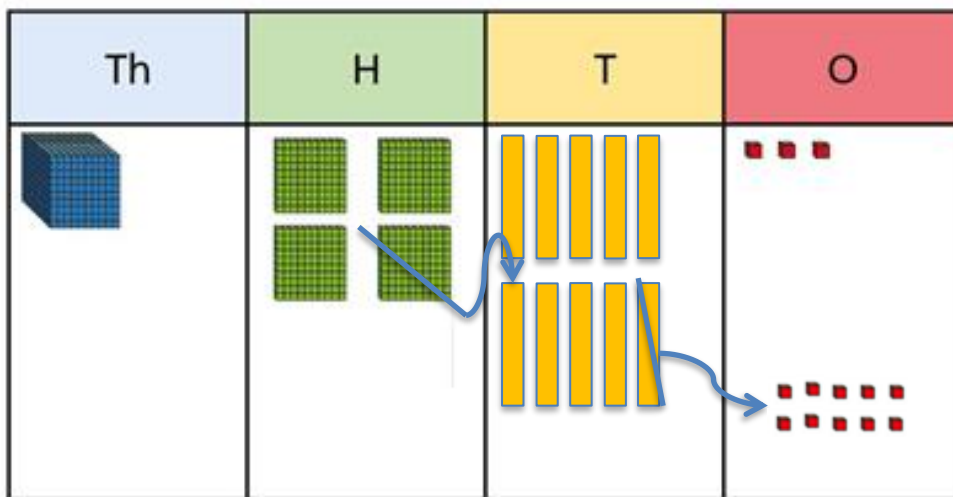
What do we do now?

| Th | H | T | O |
|---|---|---|---|
|  |  |  |  |

I a) $1403 - 7 = ?$

Then, exchange a ten for 10 ones.

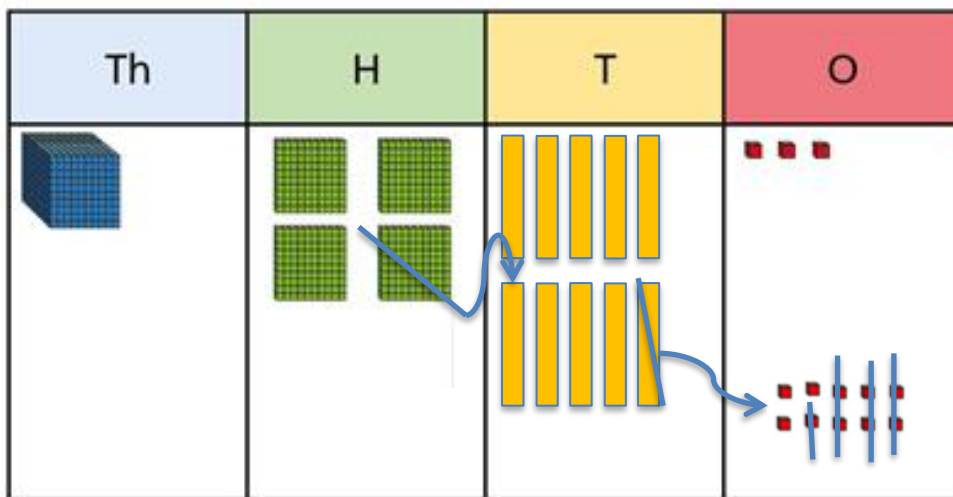
What can we do now?



I a) $1403 - 7 = ?$

Now, we can take 7 ones from 13.

$$13 - 7 = ?$$

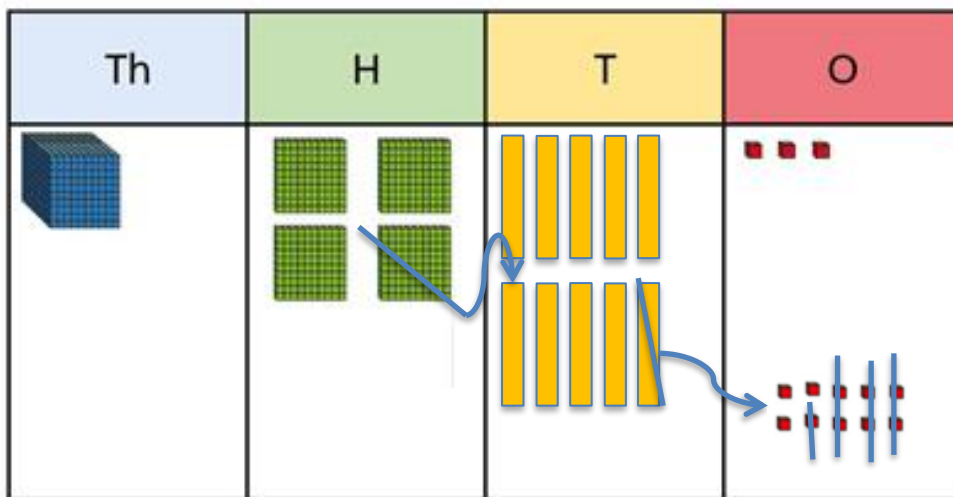


I a) $1403 - 7 = ?$

Did you get 6?

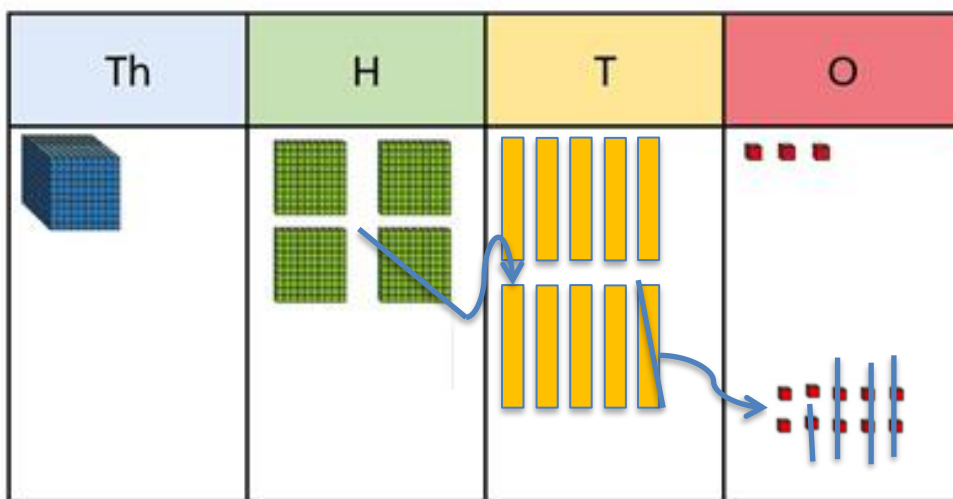
$$13 - 7 = 6$$

So what is the final answer?



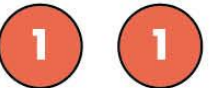


I a) $1403 - 7 = 1396$

Did you get 1396?



2 Use the place value chart to complete the subtractions.

| H | T | O |
|---|--|---|
|  |  |  |

a) $442 - 332 =$



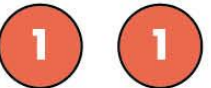
c) $442 - 343 =$

b) $442 - 333 =$



2

Use the place value chart to complete the subtractions.

| H | T | O |
|---|--|---|
|  |  |  |

a) $442 - 332 =$ 110

c) $442 - 343 =$ 99

b) $442 - 333 =$ 109

Did you get these answers?

Did you find....

a) there is no exchange needed.

b) there is one exchange needed, a ten for 10 ones.

c) there is more than one exchange needed, hundred for 10 tens and ten for 10 ones.



4

Let's try this column subtraction.

a)

| | Th | H | T | O |
|---|----|---|---|---|
| | 6 | 2 | 1 | 4 |
| - | 3 | 4 | 0 | 5 |
| | | | | |

First, the ones.

We can't do $4 - 5$.

What do we do?

4

Let's try this column subtraction.

a)

| | Th | H | T | O |
|---|----|---|---------------------------|----------------|
| | 6 | 2 | 1 ⁰ | ¹ 4 |
| - | 3 | 4 | 0 | 5 |
| | | | | |

We can't do $4 - 5$.

So, we exchange a ten for 10 ones.

Don't forget to make the tens into 0!

What can we do now?

4

Let's try this column subtraction.

a)

| | Th | H | T | O |
|---|----|---|---------------------------|----------------|
| | 6 | 2 | 1 ⁰ | ¹ 4 |
| - | 3 | 4 | 0 | 5 |
| | | | | |

Now, we can subtract 5 from 14.

What is $14 - 5 = ?$

4

Let's try this column subtraction.

a)

| | Th | H | T | O |
|---|----|---|---------------------------|----------------|
| | 6 | 2 | 1 ⁰ | ¹ 4 |
| - | 3 | 4 | 0 | 5 |
| | | | 0 | 9 |

Did you get 9?

$$14 - 5 = 9$$

Now, $0 - 0 = 0$

Let's look at the hundreds.

Can we do $2 - 4$?

4

Let's try this column subtraction.

a)

| | Th | H | T | O |
|---|---------------------------|----------------|---------------------------|----------------|
| | 6 ⁵ | ¹ 2 | 1 ⁰ | ¹ 4 |
| - | 3 | 4 | 0 | 5 |
| | | | 0 | 9 |

We can't do $2 - 4$, so we need to exchange a hundred for 10 tens.

Now, we can take 4 from 12.

What is $12 - 4 = ?$

4

Let's try this column subtraction.

a)

| | Th | H | T | O |
|---|---------------------------|----------------|---------------------------|----------------|
| | 6 ⁵ | ¹ 2 | 1 ⁰ | ¹ 4 |
| - | 3 | 4 | 0 | 5 |
| | | 8 | 0 | 9 |

Did you get 8?

$$12 - 4 = 8$$

What is the final answer?

4

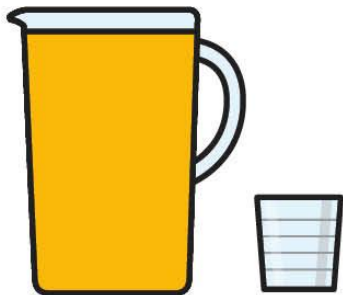
Let's try this column subtraction.

a)

| | Th | H | T | O |
|---|---------------------------|----------------|---------------------------|----------------|
| | 6 ⁵ | ¹ 2 | 1 ⁰ | ¹ 4 |
| - | 3 | 4 | 0 | 5 |
| | 2 | 8 | 0 | 9 |

Did you get 2809?

- 5 A jug contains 1,500 ml of juice.



The juice is poured into a glass.

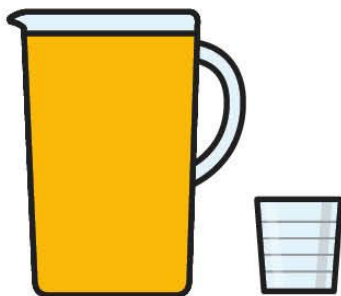
The glass holds 136 ml of juice.

How much juice is left in the jug?

How could we work it out?



- 5 A jug contains 1,500 ml of juice.



The juice is poured into a glass.

The glass holds 136 ml of juice.

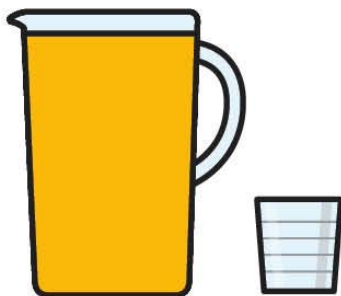
How much juice is left in the jug?

To find how much juice is left, we need to subtract the volume of juice in the glass from the volume of juice in the jug.

Write the column subtraction.



5 A jug contains 1,500 ml of juice.



Try and work it out!

| | Th | H | T | O |
|---|----|---|---|---|
| | 1 | 5 | 0 | 0 |
| - | | 1 | 3 | 6 |
| | | 3 | 6 | 4 |



5 A jug contains 1,500 ml of juice.



We have to go to the hundreds column to help us.
First, we have to exchange a hundred for 10 tens.
Then, exchange a ten for 10 ones.
We must remember to change the 10 into a 9 in
the tens column!



| | Th | H | T | O |
|---|----|---------------------------|---------------------------|----------------|
| | 1 | 5 ⁴ | 0 ⁹ | ¹ 0 |
| - | | 1 | 3 | 6 |
| | | 3 | 6 | 4 |



7

Arrange all the digit cards to make a possible subtraction for each description.



a) There are 2 exchanges.

The answer is

less than 3,000

There are lots of possible answers.
Try putting numbers in the boxes and
work out the answers.

CLUE: If there are 2 exchanges, there
must be two times when the top
number is smaller than the bottom.

| | | | |
|--|--|--|--|
| | | | |
| | | | |



- 7 Arrange all the digit cards to make a possible subtraction for each description.



a) There are 2 exchanges.

The answer is
less than 3,000

$$\begin{array}{r} 4173 \\ - 2506 \\ \hline \end{array}$$

One possible answer.

As you can see there are 2 exchanges needed, from the tens to ones and thousands to hundreds.

| | T | H | T | O |
|---|----------------|----------------|----------------|----------------|
| | 4 ³ | 1 ¹ | 7 ⁶ | 1 ³ |
| - | 2 | 5 | 0 | 6 |
| | 1 | 6 | 6 | 7 |