

Today, we will be revising column subtraction.

- Subtracting a pair of numbers
- Being able to deal with zero when exchanging

Quiz Quick: use mental methods such as counting up eg $17 - 12$ (count up from 12) =5

- $18 - 5$
- $17 - 4$
- $19 - 3$
- $12 - 4$
- $16 - 8$
- $11 - 5$
- $13 - 6$

Answers

- $18 - 5 = 13$ (use $8-5=3$)
- $17 - 4 = 13$ (use $7-4=3$)
- $19 - 3 = 16$ (use $9-3=6$)
- $12 - 4 = 8$ (use $4+6$ is 10 and an extra 2 to get to 12)
- $16 - 8 = 8$ (use doubling and halving knowledge)
- $11 - 5 = 6$ (use $5+5$ is 10 and an extra 1 to get to 11)
- $13 - 6 = 7$ (use $6+4$ is 10 then an extra 3 to get to 13)

Column Subtraction: quick reminder of the procedure

• $72,164 - 26,708 =$

	Millions	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
			7	2	1	6 5	¹ 4
—			2	6	7	0	8
						5	6

Cannot do $4 - 8$
so exchange is
needed.



Now try these...

- $28,259 - 10,748 =$ (one lot of exchanging needed)
- $122,940 - 13,472 =$ (three lots of exchanging needed!)

Answers...

- $28,259 - 10,748 = 17,511$
- $122,940 - 13,472 = 109,468$

What happens with this?

• $4307 - 1648 =$

BUT THERE IS NOTHING HERE !

Cannot do $7 - 8$
so exchange is
needed.

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Millions	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
			4	3	0	7
			1	6	4	8

So, we go to the 3 hundreds, take 1 of these hundreds and split that into 90 and 10

• $4307 - 1648 =$

Millions	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
			4	3	0	7
-			1	6	4	8

Then, continue as usual...

• $4307 - 1648 =$

2 – 6 we cannot do, so a final exchange is needed

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Millions	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
			4 3	3 1 ²	0 9	7 1
			1	6	4	8
			2	6	5	9

To recap, we did this...

	TTh	Th	H	T	O
		3 4	12 3	9 0	1 7
—		1	6	4	8
		2	6	5	9

Look ahead to see what will happen!

- $66,042 - 27,565$

BUT THERE IS NOTHING HERE !
and exchange needed

Exchange needed

Exchange needed

Exchange needed

—

Millions	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
		6	6	0	4	2
		2	7	5	6	5

Look closely...

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Millions	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
		6 5	6 15	0 9	4 13	12
		2	7	5	6	5
		3	8	4	7	7

Try these...

- $72,164 - 26,708$
(yellow shows where exchange is needed)

	TTh	Th	H	T	O
—	7	2	1	6	4
	2	6	7	0	8

- $536,017 - 329,643 =$

and a zero!

	HTh	TTh	Th	H	T	O
—	5	3	6	0	1	7
	3	2	9	6	4	3

Answers...

TTh	Th	H	T	O
7 ⁶	2 ¹ ₁	1 ₁	6 ⁵	1 ₄
2	6	7	0	8
[Redacted]				
4	5	4	5	6

HTh	TTh	Th	H	T	O
5	3 ²	6 ¹ ₅	0 ⁹	1 ₁	7
3	2	9	6	4	3
[Redacted]					
2	0	6	3	7	4

Now, try some independent practice...

- **Copy** the numbers carefully
- **Line up** the digits correctly underneath each other
- Think about if the **subtraction is possible** if not **exchange**
- If there is a **zero in the top row**, you will need to exchange again and the zero will become a 9
- **Double check** your steps before you look at the answer sheet