

L.O: To use the formal written method to subtract

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$$347 - 283$$

Read the calculation carefully.

Can you see which column will give us the problem?

L.O: To use the formal written method to subtract

	H	T	O
	3	4	7
-	2	8	3
	<hr/>		
	<hr/>		

No matter how many digits the calculation has we always need to line up the numbers in their correct columns so that the Ones are beneath each other, the Tens beneath each other and so on.

L.O: To use the formal written method to subtract

	H	T	O
	2 ²	¹ 4	7
-	2	8	3
	<hr/>		
			4
	<hr/>		

Remember, we must exchange from the column to the left if the top digit is less than the bottom one.

Here, we exchange 1 of the Hundreds for 10 Tens and now we can complete 14 Tens minus 8 Tens (or 140 - 80) and finish the calculation

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$$\begin{array}{r} 20\overset{2}{\cancel{3}}16 \\ - 1417 \\ \hline 1419 \end{array}$$

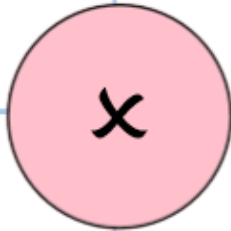
Look carefully.
What error has
been made here?

STL:

- Write numbers in columns
- Subtract ones (*exchange?)
- Subtract tens (*exchange?)
- Subtract hundreds (*exchange?)
- Subtract thousands (*exchange?)
- *Exchange from next column if top digit is smallest.
- Take one off next column
- Write a 1 in front of digit in working column

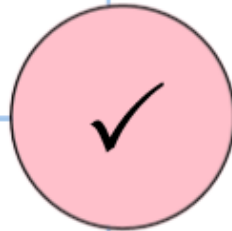
L.O: To use the formal written method to subtract

$$\begin{array}{r} 20\cancel{3}16 \\ - 1417 \\ \hline 1419 \end{array}$$



Here they didn't exchange 1 Th for 10 H, and did the calculation the wrong way round!

$$\begin{array}{r} 1\cancel{2}10\cancel{3}16 \\ - 1417 \\ \hline 0619 \end{array}$$



L.O: To use the formal written method to subtract

$$62.32 - 42.6$$

Now we have a different number of digits in the calculation as well as decimal digits.

How can we make sure that we line up the digits correctly?

L.O: To use the formal written method to subtract

$$\begin{array}{r} 6 \overset{1}{\cancel{2}} \overset{1}{.} 3 \quad 2 \\ - 4 \quad 2 \quad . \quad 6 \quad 0 \\ \hline \\ \hline \end{array}$$

Make sure that the decimal points are beneath each other and use a zero as a place holder if needed. Also, remember the decimal in the answer row.

Complete the calculation. I've already exchanged once.

L.O: To use the formal written method to subtract

$$78.4 - 26.13$$

Have a go at this one.

You will also need to add a zero place holder in the top row.

STL:

- Write numbers in columns
- Write a decimal in the answer row
- Subtract hu (*exchange?)
- Subtract te (*exchange?)
- Subtract O (*exchange?)
- Subtract T (*exchange?)
- *Exchange from next column if top digit is smallest.
- Take one off next column
- Write a 1 in front of digit in working column

L.O: To use the formal written method to subtract

$$\begin{array}{r} 7 \quad 8 \quad . \quad \overset{3}{\cancel{4}} \quad \overset{1}{0} \\ - 2 \quad 6 \quad . \quad 1 \quad 3 \\ \hline 5 \quad 2 \quad . \quad 2 \quad 7 \end{array}$$

Here we needed to exchange one of the Tens for ten of the Ones. We could then complete $10 - 3$ in the Ones column.

Questions

Easier

- 1) $723 - 402$
- 2) $944 - 229$
- 3) $633 - 43$
- 4) $736 - 253$
- 5) $689 - 192$
- 6) $7342 - 3521$
- 7) $6562 - 4837$
- 8) $7034 - 4821$
- 9) $8604 - 1372$
- 10) $72.3 - 61.6$
- 11) $86.7 - 29.3$
- 12) $32.61 - 17.20$

Harder

- 1) $632 - 351$
- 2) $7026 - 513$
- 3) $9067 - 2519$
- 4) $8036 - 4822$
- 5) $9921 - 891$
- 6) $7047 - 4718$
- 7) $732.4 - 681.3$
- 8) $82.47 - 69.23$
- 9) $694.3 - 28.1$
- 10) $823.7 - 474$
- 11) $9317 - 872$
- 12) $734 - 26.3$

Hardest !

- 1) $6926 - 3918$
- 2) $7421 - 4319$
- 3) $8074 - 5738$
- 4) $9007 - 483$
- 5) $736.1 - 491.6$
- 6) $886.7 - 497$
- 7) $70.09 - 6.73$
- 8) $4327 - 26.8$
- 9) $8006.9 - 73.4$
- 10) $693 - 27.8$
- 11) $32473 - 1392$
- 12) $74276 - 13939$

Answers on slide 15

$$\begin{array}{r}
 \text{a)} \quad 7 \quad 9 \quad 4 \quad 2 \\
 - \quad 4 \quad \square \quad 2 \quad \square \\
 \hline
 \quad 3 \quad 5 \quad 2 \quad 1
 \end{array}$$

$$\begin{array}{r}
 \text{b)} \quad 4 \quad 3 \quad 9 \quad 4 \\
 - \quad \quad 2 \quad 5 \quad \square \\
 \hline
 \quad 4 \quad 1 \quad 3 \quad 5
 \end{array}$$

$$\begin{array}{r}
 \text{c)} \quad 7 \quad \square \quad 5 \quad 3 \\
 - \quad \quad 6 \quad \square \quad 7 \\
 \hline
 \quad 6 \quad 7 \quad 4 \quad 6
 \end{array}$$

$$\begin{array}{r}
 \text{d)} \quad 7 \quad \square \quad 2 \quad 0 \\
 - \quad \quad 8 \quad 4 \quad 9 \\
 \hline
 \quad 6 \quad 6 \quad 7 \quad 1
 \end{array}$$

$$\begin{array}{r}
 \text{e)} \quad 7 \quad 2 \quad 8 \quad \square \\
 - \quad \quad \square \quad \square \quad 3 \\
 \hline
 \quad 6 \quad 4 \quad 7 \quad 0
 \end{array}$$

$$\begin{array}{r}
 \text{f)} \quad 6 \quad \square \quad 2 \quad 3 \\
 - \quad \quad 2 \quad \square \quad \square \\
 \hline
 \quad 5 \quad 8 \quad 7 \quad 7
 \end{array}$$

Missing Digits Challenges

Reasoning Challenges – From White Rose Yr 5

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 calculation
incorrectly.

	2	8	7	0	1
–		7	6	2	1
	<hr/>				
	2	1	1	8	0

Explain the mistake and
correct it.

Easier

- 1) 321
- 2) 715
- 3) 590
- 4) 483
- 5) 497
- 6) 3821
- 7) 1725
- 8) 2213
- 9) 7232
- 10) 10.7
- 11) 57.4
- 12) 15.41

Answers

Harder

- 1) 281
- 2) 6513
- 3) 6548
- 4) 3214
- 5) 9030
- 6) 2329
- 7) 51.1
- 8) 13.24
- 9) 666.2
- 10) 349.7
- 11) 8445
- 12) 707.7

Hardest !

- 1) 3008
- 2) 3102
- 3) 2336
- 4) 8524
- 5) 244.5
- 6) 389.7
- 7) 63.36
- 8) 4300.2
- 9) 7933.5
- 10) 665.2
- 11) 31081
- 12) 60337