

L.O: I am learning to subtract decimal numbers with a different number of decimal places

Today you will learn how to subtract decimals with different decimal places. You will apply your knowledge of both place value and the column method of subtraction to recognise the value of each digit and understand when you will need to exchange. Remember, the key to success is ensuring you line up the decimal points, so each digit is in the correct column.

- Answer the questions on the separate worksheet that comes with this assignment. Turn the completed work in so that the teacher can mark and comment on your work

Review

You already know how to subtract decimals with the same number of decimal places....

We can subtract numbers with the same decimal places.

Ones	Tenths	Hundredths

	4	•	6	5
-	3	•	8	1
<hr/>				
		•		

You must exchange **1 one** for **10 tenths**. Can you work out the answer?

Now we will add decimals with a different number of decimal places.

Examples

We can use visuals to subtract numbers with different decimal places.

Ones	Tenths	Hundredths

	6	•	4	3
-	5	•	2	
<hr/>				
		•		

You can see that there are no hundredths in the second number.

- What could you do to the columns to make this subtraction easier?

We can subtract and exchange with different decimal places.

Ones	Tenths	Hundredths

	5	•	7	
-	2	•	6	3
		•		

1 tenth must be exchanged for 10 hundredths.

- Can you work out the correct answer?

Let's Practise

It is important to line up the numbers correctly when using the column method. Remember to think about each digit's place value...



Show me
8.34 - 6.109
on the grid!

		•			
-		•			
		•			

Now watch the video to help you before you begin today's tasks. Click on the link below:

$$13.9\Box - \Box.86 = 9.08$$

Tens	Ones	Tenths	Hundredths
	9	0	8

<https://vimeo.com/405760804>

Today's Tasks

The tasks are arranged in 3 challenges that get progressively more difficult.

- Challenge 1 is a “mild” challenge, if you are not confident
- Challenge 2 is “spicy”, a little bit more challenging, if you are feeling confident and find the first challenge too easy.
- Challenge 3 is “hot”. The questions are designed to challenge you and can be tricky.






You can choose to do just one challenge or more than one, it is up to you. As a guide, if you are consistently getting everything correct, you should move up a challenge. If you are struggling on every question; move down a challenge.

Challenge 1:

1.

Use the visual to help you subtract the decimals where there is no need to exchange.

$4.83 - 1.6 =$

Ones	Tenths	Hundredths
		
		

	4	.	8	3
-	1	.	6	

2.

What do you notice about

- $4.7 - 3.825$ and
- $4.699 - 3.824$? (write them out using the column method, to help you)
- Is one of them more difficult than the other? Why?

3.

Subtract the following decimals using the column method:

$$8.97 - 3.4 =$$

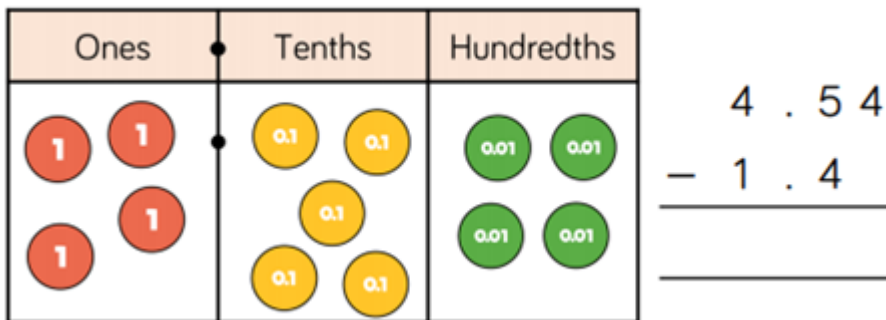
$$5.138 - 4.02 =$$

$$14.651 - 3.2 =$$

Challenge 2:

1.

Use the place value grid to help subtract 1.4 from 4.54



2.

Subtract these decimals using the column method. Remember to line your decimal point up!

$$5.98 - 2.153 =$$

$$8.374 - 3.95 =$$

$$7.5 - 5.619 =$$

3.

Ranjit is 1.48m tall and Anita is 1.3m tall.



Calculate the difference in their height.

Challenge 3:

1.

How much change would I get from £10 if I bought a bag of apples costing £4.27?



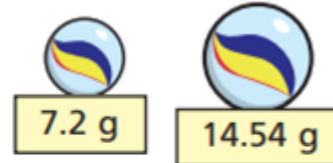
2.

Work out the missing digits. $\underline{\quad}3.4 - 2.5\underline{\quad} = 10.81$

3.

The mass of a bag of marbles is 54.3 g.

These two marbles are removed from the bag.



What is the mass of the bag of marbles now?

4.

Darcey, Alfie and Jane are calculating:

	8	.	4	
-	5	.	8	1
		.		



3.41



3.59



2.59

Whose answer is correct?

Explain the mistakes the others have made!