

**L.O: I am learning to add and subtract wholes and decimals**

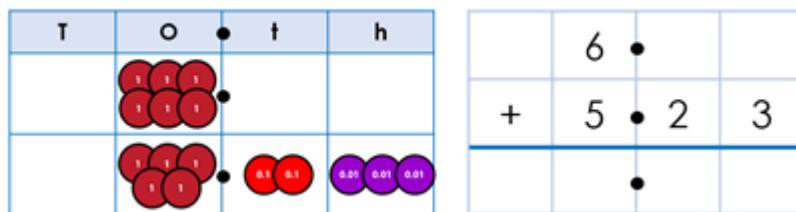
Today you will learn how to add and subtract with decimals from whole numbers. Remember that whole numbers are written WITHOUT a decimal point. The decimal point is ALWAYS to the right of the ones column.

- 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

Let's look at how we could add a decimal number and a whole number together.

**Example**

We can add decimal numbers to whole numbers.



10 ones must be exchanged for 1 ten.

- Can you work out the answer?

A whole number does not have a decimal point. Use all your place value knowledge to ensure that you line up all your columns correctly. All the digits of a whole number will come before the decimal point and will be placed to the left of the decimal point. (see the example above).

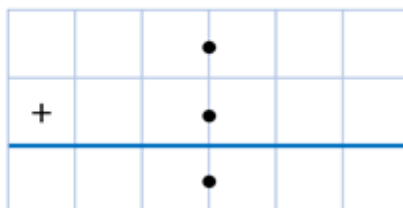
**It is important when using the column method to make sure the decimal points are all in line.**

**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...

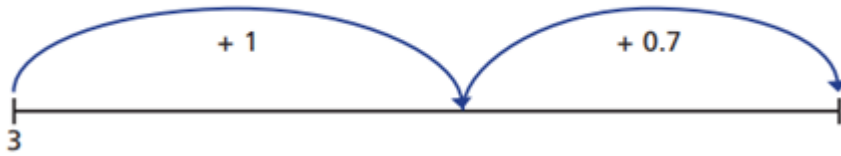


Show me  
48 + 7.509  
on the grid!



We can also use number lines to add whole and decimal numbers.

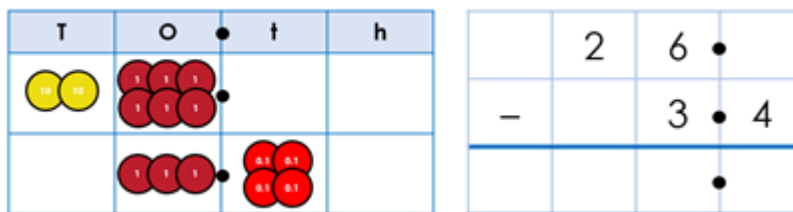
a)  $3 + 1.7 = \square$



- You can see that  $3 + 1 = 4$ , then add another 0.7 and this gives you 4.7.

**Using the same skills you can subtract decimal numbers from whole numbers**

We can subtract decimal numbers from whole numbers.



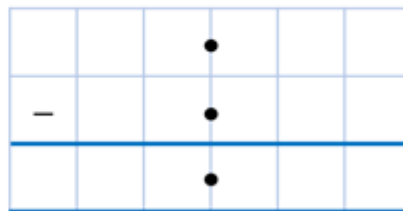
There is nothing in the hundredths column on the top number, so we can put a zero there to make it easier to subtract. However, you can't take 4 away from zero, so 1 tenth can be exchanged for 10 hundredths.

- Can you work out the answer to this subtraction?

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  $71 - 3.086$  on the grid!



We can also use number lines to add whole and decimal numbers.

Use the number lines to help you work out the subtractions.

a)  $9 - 0.6 = \square$



- You count back 6 tenths (0.6) from 9 wholes.  $9 - 0.6 = 8.4$

**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.

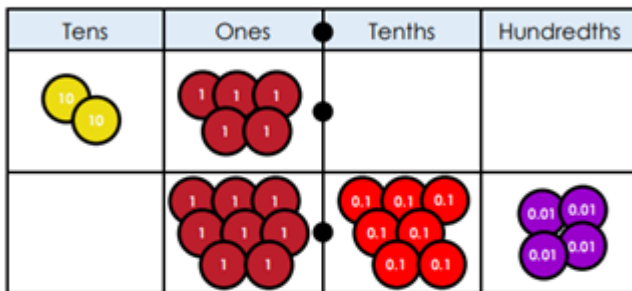
You can choose to do just one challenge or more than one, it is up to you. As a guide, if you are consistently getting everything correct, you should move up a challenge. If you are struggling on every question; move down a challenge.

### Challenge 1:

1.

Use the visual to help you add the decimal to the whole number.

$$25 + 8.74 =$$

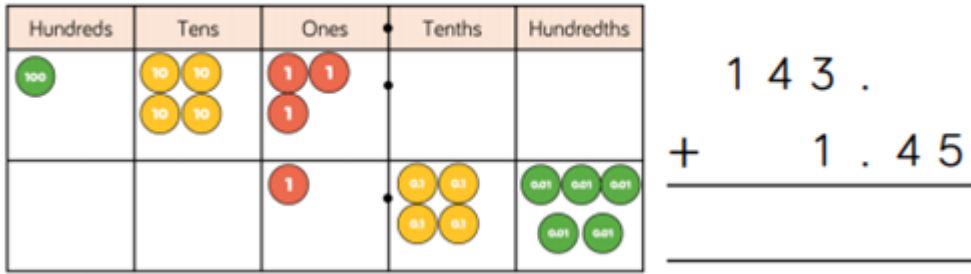


10 \_\_\_\_\_ must be exchanged for 1 \_\_\_\_\_.

	2	5	.		
+		8	.	7	4
			.		

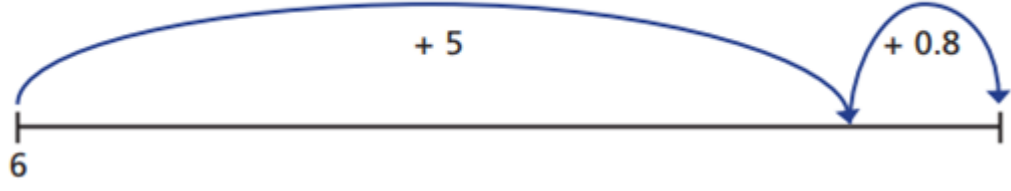
2.

Use the place value grid to help add 143 and 1.45



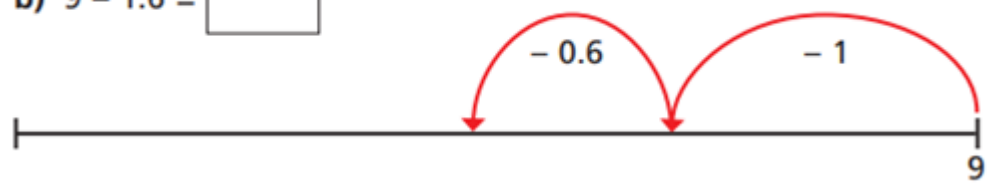
3. Add these numbers using a number line

b)  $6 + 5.8 =$



4. Now subtract these numbers using a number line

b)  $9 - 1.6 =$





5. Using any of the methods we have looked at, can you work out  $57 - 1.2$ ?

**Challenge 2:**

1.

Use the place value grid to help work out  $12 - 1.2$

Tens	Ones	Tenths
		

$$\begin{array}{r} 12. \\ - 1.2 \\ \hline \\ \hline \end{array}$$

2.

Kim has used the column method to work out  $15 + 3.89$

What other methods could you use to work out  $15 + 3.89$ ?

$$\begin{array}{r} 15.00 \\ + 3.89 \\ \hline 18.89 \end{array}$$

3.

Find the most efficient method to solve these calculations.

$$43 - 2.14 + 0.86 = \qquad 19 - 0.25 =$$

$$23 + 4.105 = \qquad 19 - 17.37 =$$

4.

Jerry cycled 17km last week and 26.85km this week.

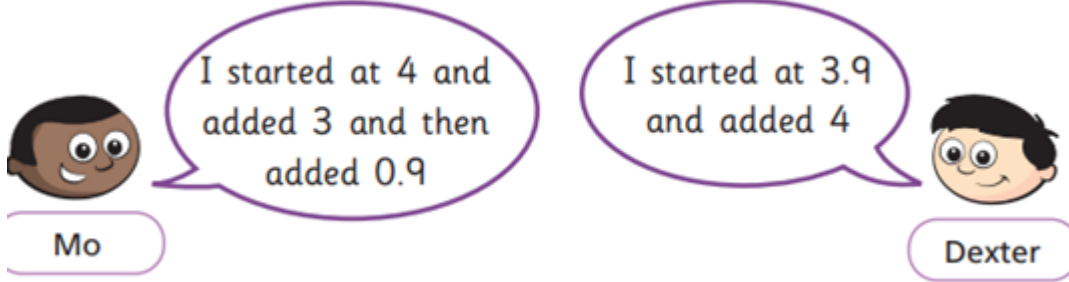


How many km did he cycle altogether?

### Challenge 3:

1.

Mo and Dexter are trying to add 3.9 and 4 in their heads.



Mo: I started at 4 and added 3 and then added 0.9

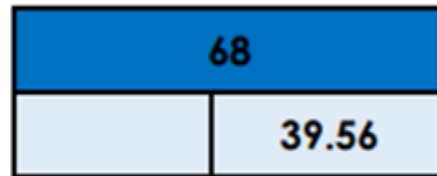
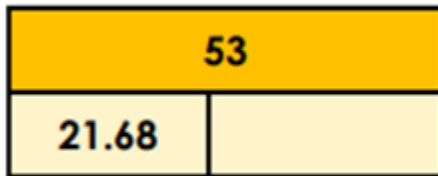
Dexter: I started at 3.9 and added 4

Whose method do you prefer? \_\_\_\_\_

Explain your thinking.

2.

Complete the bar models

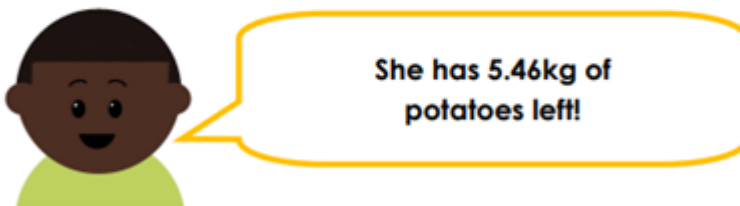


Show or explain how you worked it out.

3.

The school cook had a 12kg sack of potatoes.

She used 3.54kg last week and 4kg this week.



She has 5.46kg of potatoes left!

Is Caleb correct? Convince me!