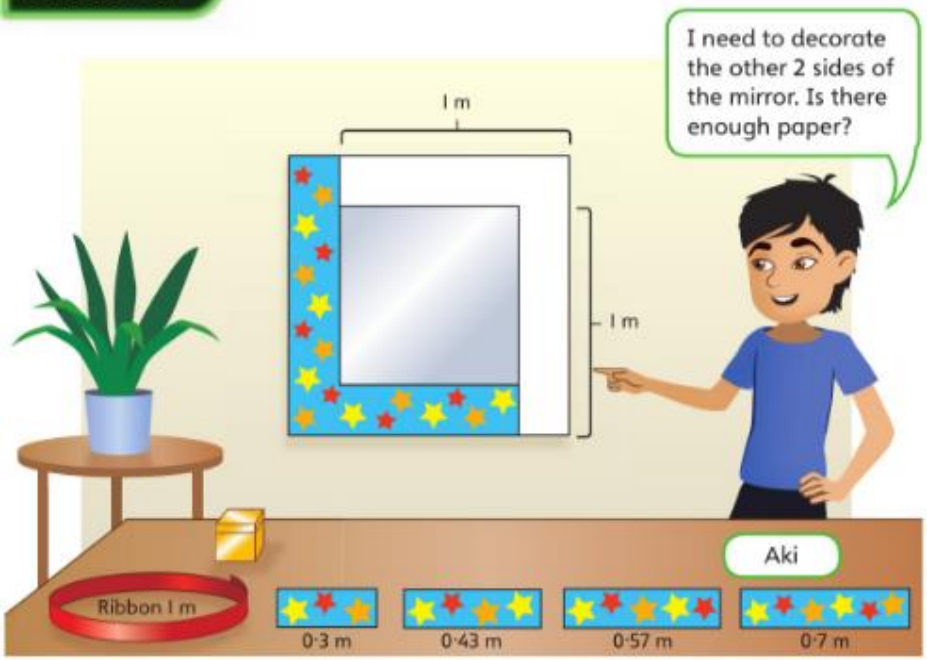
Monday 4.5.2020 Year 5 Modelled Examples Unit 12 Lesson 3

You may also wish to visit https://whiterosemaths.com/homelearning/year-5/
Summer term week 1 **Lesson 3 - Complements to 1**

Unit 12: Decimals, Lesson 3

Adding and subtracting decimals 3

Discover



1 a) How can Aki use the paper to decorate the other two sides of the mirror?

b) Aki bought 1 m of ribbon. He used 0·235 m to go around the outside of his treasure box.

How much ribbon does Aki have left?

Share

a) Aki has two 1 m sides of mirror to cover. He needs to find paper pieces that make 1 m.

	O	·	Tth
	0	·	7
+	0	·	3
	1	·	0

0·7 + 0·3 = 1

	O	·	Tth	Hth
	0	·	5	7
+	0	·	4	3
	1	·	0	0

0·57 + 0·43 = 1

I remember! On a hundredths grid, 1 column is equal to 1 tenth (0·1) or 10 hundredths (0·10).

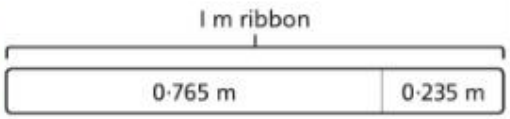
I used number bonds to 10 and 100 to work out which ones added to one whole.

Aki can use the 0·7 m and 0·3 m pieces to decorate one side of the mirror and 0·57 m and 0·43 m to decorate the other side.

b) We need to do a subtraction to work how much ribbon Aki has left.

I used number bonds to 1,000 to check my answer.

235 + 765 = 1,000



Write 1 as 1·000 and subtract 0·235.

	O	·	Tth	Hth	THth
	⁰1	·	9	9	¹0
−	0	·	2	3	5
	0	·	7	6	5

Aki has 0·765 m of ribbon left.

Discuss with your carers then complete the activities in your maths book 5C p12

Think together

1 These pieces of decorative paper have been cut from 1 m strips of paper.

Find the amount left from each strip.

a) 0·4 m

1 m − ☐ m = ☐ m

b) 0·49 m

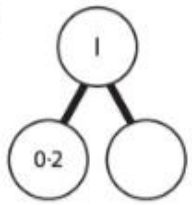
1 m − ☐ m = ☐ m

c) 0·68 m

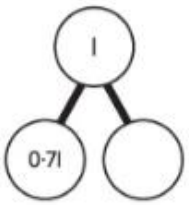
1 m − ☐ m = ☐ m

2 Write the missing numbers.

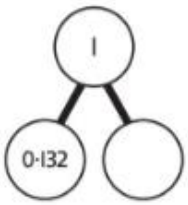
a)



b)



c)



d)

CHALLENGE

3 Look at the place value grids.

O	•	Tth	Hth
	•		

O	•	Tth	Hth	Thth
	•			

Use more counters to work out the missing numbers.

a) 0·29 + ☐ = 1

b) 0·724 + ☐ = 1

For the first one, I think I need to add 1 hundredth and 8 tenths counters so there are 10 in each column. Then I can exchange.

I do not think that is right. When you add a hundredth you need to do an exchange before you add some tenths.

c) Work out the missing numbers so that each calculation is true.

0·34 + ☐ + 0·21 = 1

0·34 − 0·21 + ☐ = 1

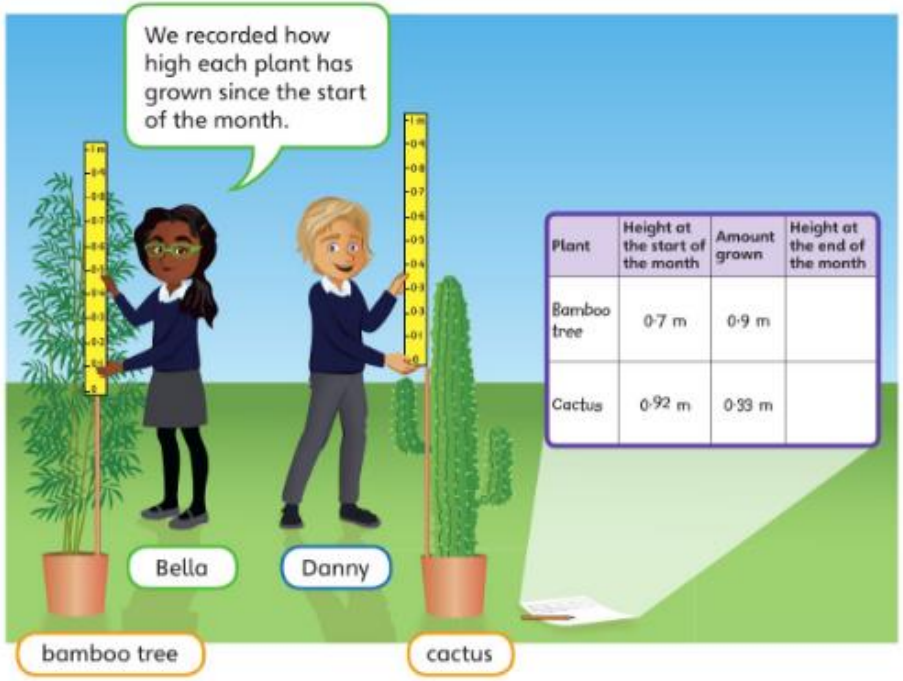
0·234 + ☐ + ☐ = 1

Tuesday 5.5.2020 Year 5 Modelled Examples Unit 12 Lesson 4

You may also wish to visit https://whiterosemaths.com/homelearning/year-5/
Summer term week 1 **Lesson 4 - Adding decimals - crossing the whole**

Adding and subtracting decimals 4

Discover



Plant	Height at the start of the month	Amount grown	Height at the end of the month
Bamboo tree	0·7 m	0·9 m	
Cactus	0·92 m	0·33 m	

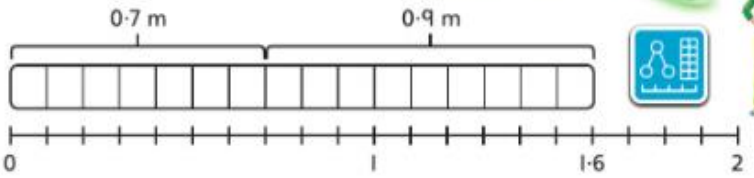
1 a) What is the height of each plant at the end of the month?

b) How much taller than the cactus is the bamboo tree?

Share

a) At the start of the month the bamboo tree was 0·7 m tall. It grows by 0·9 m. We need to add 0·7 and 0·9.

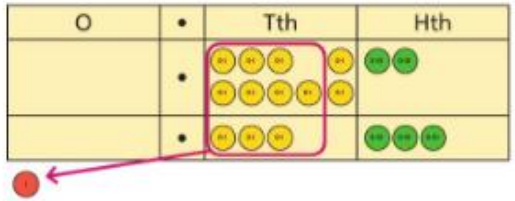
I used a number line to help me work out the height of the bamboo tree.



0·7 + 0·9 = 1·6. At the end of the month the height of the bamboo tree is 1·6 m.

The cactus is 0·92 m tall at the start of the month. It grows by 0·33 m.

We need to add 0·33 to 0·92.



	O	·	Tth	Hth
	0	·	9	2
+	0	·	3	3
	1	·	2	5

0·92 + 0·33 = 1·25

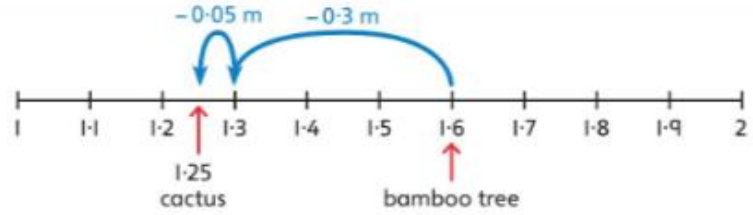
At the end of the month the height of the cactus is 1·25 m.

I used column addition to add 0·92 and 0·33.

When I added the tenths, I got 12 tenths. This is the same as 1 whole and 2 tenths.

Discuss with your carers then complete the activities in your maths book 5c p15

b)



1·6 m − 1·25 m = 0·35 m

1·25 m + 0·35 m = 1·6 m

The bamboo tree is 0·35 m taller than the cactus.

Think together

1 Bella and Danny also measured a sunflower.

What is the height of the sunflower at the end of the month?

Plant	Height at the start of the month	Amount grown	Height at the end of the month
Sunflower	0·67 m	0·75 m	

O	•	Tth	Hth
	•		
	•		

O	·	Tth	Hth
0	·	6	7
+ 0	·	7	5
	·		

0·67 + 0·75 = ☐

At the end of the month the height of the sunflower is ☐ m.

2 a) Emma collects 0·5 kg of apples from her apple tree. She then collects 0·7 kg of plums.

I collected 0·12 kg of fruit in total.

Emma

Explain why Emma is wrong.

b) Max adds two numbers together.

What mistake has he made?

O	·	Tth	Hth
0	·	4	8
+ 0	·	7	1
0	·	11	9

3 Find the missing numbers to make these calculations correct.

CHALLENGE

a)

O	·	Tth
0	·	8
+ 0	·	✱
1	·	3

b)

O	·	Tth	Hth
0	·	✱	2
+ 0	·	3	✱
1	·	2	7

c)

O	·	Tth	Hth	Thth
0	·	4	✱	4
+ 0	·	6	8	5
✱	·	✱	3	✱

I wonder how I can check that my answers are correct.

Wednesday 6.5.2020 Year 5 Modelled Examples Unit 12 Lesson 5

You may also wish to visit https://whiterosemaths.com/homelearning/year-5/
Summer term week 2 **Lesson 1 - Adding decimals with the same number of decimal places**

Adding and subtracting decimals 5

Discover

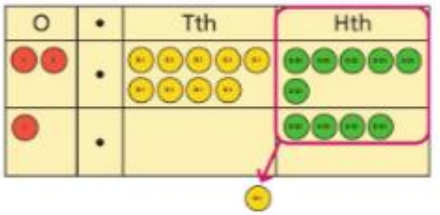
1 a) Max wants to buy a pizza and a juice. Does he have enough money?

b) What is the total cost of Jamie's meal?

Share

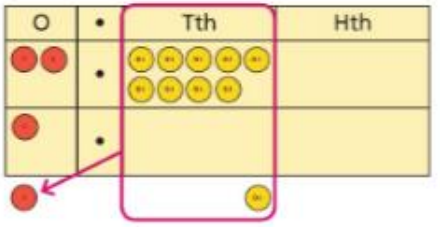
a) Add £2·96 and £1·04 to work out the total cost of a pizza and a juice.

Add the hundredths first.



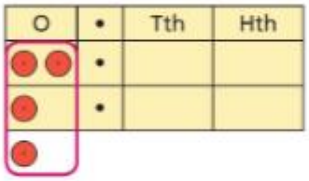
	O	·	Tth	Hth
	2	·	9	6
+	1	·	0	4
		·		0

Add the tenths next.



	O	·	Tth	Hth
	2	·	9	6
+	1	·	0	4
		·	0	0

Finally, add the 1s.



	O	·	Tth	Hth
	2	·	9	6
+	1	·	0	4
	4	·	0	0

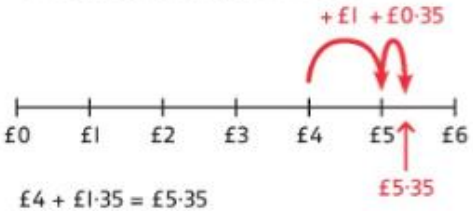
Max's meal costs £4 in total, so he has enough money.

I used the column method to add the two amounts.

Discuss with your carers then complete the activities in your maths book 5C p18

b) Jamie's meal costs £1·35 more than Max's.

We need to work out £4 + £1·35.



£4 + £1·35 = £5·35

The total cost of Jamie's meal is £5·35.

I used a number line and added on the whole £s first and then the part of the whole.

Think together

1 Here are some items for sale in a supermarket.


Bag of apples £1·99


Bananas £2·34


Melon £2·15


Bag of pears £1·70


Bag of cherries £3·57

How much do these items cost in total?

a) bananas and melon

O	·	Tth	Hth
2	·	3	4
+ 2	·	1	5
	·		

The total cost is £☐.

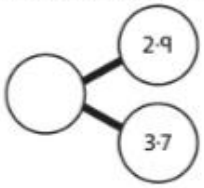
b) pears and cherries

O	·	Tth	Hth
1	·	7	0
+ 3	·	5	7
	·		

The total cost is £☐.

2 Work out the missing numbers.

a)



b)

2·453	5·232

c) 6 ones, 3 tenths and 4 hundredths plus 7 ones, 2 tenths and 9 hundredths is equal to ☐ tens, ☐ ones, ☐ tenths and ☐ hundredths.

3 Jamilla buys three items. She pays exactly £12.

CHALLENGE

a) Which items did she choose?

☐ + ☐ + ☐ = £12·00

I am going to add the last digits and see if any add up to 0.

b) When added together, two of the items cost exactly the same as another two items.

Which items are they?

☐ + ☐ = ☐ + ☐

I wonder how to check that my answers are correct.

Thursday 7.5.2020 Year 5 Modelled Examples Unit 12 Lesson 6

You may also wish to visit https://whiterosemaths.com/homelearning/year-5/
Summer term week 2 **Lesson 2 - Subtracting decimals with the same number of decimal places**

Adding and subtracting decimals 6

Discover

1 a) How much does the watermelon cost?

b) Amelia gives Toshi £6·00. How much change does she get?

Share

a) To find the cost of the watermelon we need to subtract £2·25 from £5·74.

£5·74	
£2·25	?

I am going to use a column method. I will start from the right-hand column.

Subtract the 5 hundredths first.

There are not enough hundredths.

O	·	Tth	Hth
5	·	7	4
− 2	·	2	5
	·		

Exchange 1 tenth for 10 hundredths.

O	·	Tth	Hth
5	·	6 7	1 4
− 2	·	2	5
	·		

Now subtract the 5 hundredths.

O	·	Tth	Hth
5	·	6 7	1 4
− 2	·	2	5
	·		9

Now subtract the 2 tenths, then the 2 ones.

O	·	Tth	Hth
5	·	6 7	1 4
− 2	·	2	5
3	·	4	9

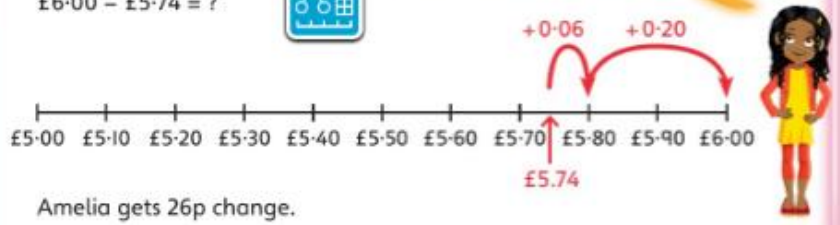
The watermelon costs £3·49.

Discuss with your carers then complete the activities in your maths book 5C p21

b) To find the change we need to subtract.

£6·00 – £5·74 = ?

I used a number line to count on to find the difference. I think this is an efficient way to find change.



Amelia gets 26p change.

Think together

1 A shop sells some socks and hats.

How much cheaper is the hat than the socks?

O	•	Tth	Hth
●●●●●	•	●	●●●●●

	O	·	Tth	Hth
	5	·	1	5
–	3	·	5	2
		·		

☐ – ☐ = ☐

The hat is £☐ cheaper than the socks.

2 Write these as column subtractions and complete them.

Predict how many exchanges you will need to make.

a) 37·5 – 13·9 = ☐

b) 2·654 – 1·375 = ☐

Did you predict correctly?

3 Lexi, Ebo and Reena are thinking of numbers.

CHALLENGE

Lexi: If I add 2·7 to my number I get 7·3.

Reena: If I add 1·23 to my number and then add 3·57, my answer is 12·04.

Ebo: I started with 12·65 and subtracted 3·92 to get to my number.

Ebo says that to work out Lexi's number you need to subtract. He does the following calculation.

	O	·	Tth
	7	·	3
–	2	·	7
	5	·	4

a) What mistake has Ebo made?

b) What are Ebo and Reena's numbers?

I wonder why I have to subtract to find Lexi's number.

I think it is because you have to do the inverse since Lexi has already added on 2·7 to get 7·3.

Friday – 8.5.2020

Bank Holiday – VE Day

You may if you wish go onto TRRS and improve your score or go to Education City and focus on your set piece in classwork.