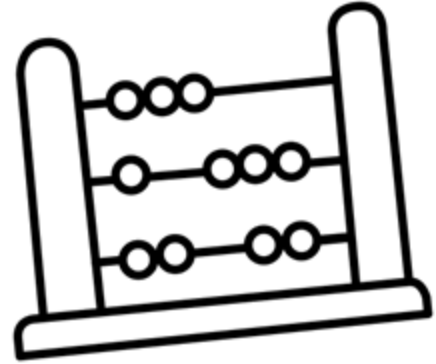


Explain and represent whole pounds and pence as a quantity of money



Maths

Unit: Money: Apply efficient strategies when calculating with money

Outcome

I can explain and represent whole pounds and pence as a quantity of money.



Keywords

tenth

hundredth

pounds (£)

pence (p)

placeholder



Keywords

A **tenth** is the name we give to one part of ten equal parts.

A **hundredth** is the name we give to one part of one hundred equal parts.

The units of money used in the UK are **pounds (£)** and **pence (p)**.

A **placeholder** is where we use the digit zero to hold a place in a number and maintain place value.



Lesson outline

Explain and represent pounds and pence as a quantity of money



Using decimal notation to record money



Using zero as a placeholder when recording money



Remember - we can express this money total as £2.00



Using decimal notation to record money

We can show this in a place value chart.

£1 (or 100 p)		
2		



Using decimal notation to record money

£1 (or 100 p)		
2		
£	2	



The decimal point separates the number of whole **pounds** from the number of part **pounds** - or **pence**.



Using decimal notation to record money

£1 (or 100p)		10p	
2		0	
£	2	0	



In this case, there are no 10 **pences**.

There are no **tenths** of a **pound**.



Using decimal notation to record money

£1 (or 100p)		10p	1p
2		0	0
£	2	0	0



There are no 1 **pences**.

So there are no **hundredths** of a **pound**.



Using decimal notation to record money

We can write all amounts of money using decimal notation.
Here we have two pounds and fifty pence.



Using decimal notation to record money

10 p is one tenth of £1.00.

Here we have five 10 pences or five **tenths** of £1.00.

£1 (or 100p)		10p	
2		5	
£	2	5	0



We have no pennies, so no **hundredths** of a pound.



Using decimal notation to record money

We can write all amounts of money using decimal notation.
Here we have two pounds and fifty-three pence.



Using decimal notation to record money

1 p is one **hundredth** of £1.00.

Here we have three 1 ps - or three **hundredths** of £1.00.

£1 (or 100p)		10p	1p
2		5	3
£	2	5	3



Using decimal notation to record money

£	2	5	3
---	---	---	---

So, Sofia - pounds and pence are just like whole numbers and decimals!

Yes, Jacob!
They are.



Using decimal notation to record money

£	2	5	3
---	---	---	---

So we read this as 'two-pounds-point-five-three'.

No. You read the decimal point as 'pounds'. So it's 'two-pounds-fifty-three'.



Generalisation:

The number to the left of the decimal point represents the number of whole pounds.



£2.53

The number to the right of the decimal point represents the number of additional pennies.



There are two ways we can say this.

'Two pounds
fifty-three'.

'Two pounds and
fifty-three pence'.

£2.53



Using decimal notation to record money

Copy and complete the place value charts.

£1 (or 100p)		10p	1p
4		2	6
£	4	2	6



Using decimal notation to record money



Copy and complete the place value charts.

£1 (or 100p)		10p	1p
3		1	8
£	3	1	8



Using decimal notation to record money



Jacob writes this to show the amount of money. Is he correct? Explain your answer.

No. He has put the pennies as the first decimal place - but they are hundredths of a pound, so they go in the second decimal place. It should be £2.54

£2.45



Task A

Using decimal notation to record money



Take a handful of £1.00, 10 p and 1 p coins.

Record your total in the table.

Practise saying it in two ways:

‘three pounds seventy-four’

‘three pounds and seventy-four pence’.

			Total
3	7	4	£3.74



Task A

Using decimal notation to record money



Feedback

Responses could include...

			Total
3	7	4	£3.74
6	3	8	£6.38



Lesson outline

Explain and represent pounds and pence as a quantity of money



Using decimal notation to record money



Using zero as a placeholder when recording money



Using zero as a placeholder when recording money

Let's revisit this money total. Remember - we always use 2 decimal places when recording money with **pounds** and **pence**.

£1 (or 100p)		10p	
2		5	
£	2	5	



Using zero as a placeholder when recording money

This time there are no 1 **pences** (or **hundredths** of a **pound**).

£1 (or 100p)	10p	
2	5	

£	2	.	5	
---	---	---	---	--



Using zero as a placeholder when recording money

This time there are no 1 **pences** (or **hundredths** of a **pound**)

£1 (or 100p)	10p	1p
2	5	0

£	2	.	5	
---	---	---	---	--

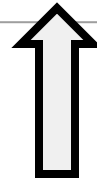


Using zero as a placeholder when recording money

So we include a **placeholder** zero. Now it has 2 decimal places. We read it as 'two pounds fifty'.

£1 (or 100p)	10p	1p
2	5	0

£	2	.	5	0
---	---	---	---	---



Using zero as a placeholder when recording money

How might we say this amount of money?

£1 (or 100p)		10p	1p
2			
£	2	.	



Using zero as a placeholder when recording money

£1 (or 100p)	10p	1p
2	9	

£	2	.	9	
---	---	---	---	--



Using zero as a placeholder when recording money

‘Two pounds ninety’ or ‘two pounds and ninety pence’.

£1 (or 100p)	10p	1p
2	9	0

£	2	.	9		0
---	---	---	---	--	---



What would happen if there was one more 10 p?



Using zero as a placeholder when recording money

‘Two pounds ninety’ or ‘two pounds and ninety pence’.

£1 (or 100p)	10p	1p
2	9	0

£	2	.	9		0
---	---	---	---	--	---



What would happen if there was one more 10 p?



Using zero as a placeholder when recording money

‘Two pounds ninety’ or ‘two pounds and ninety pence’.

£1 (or 100p)	10p	1p
3	0	0

£	3	.	0	0
---	---	---	---	---



9 is the highest digit that can go in any of the columns.

The ten 10 ps are exchanged for £1

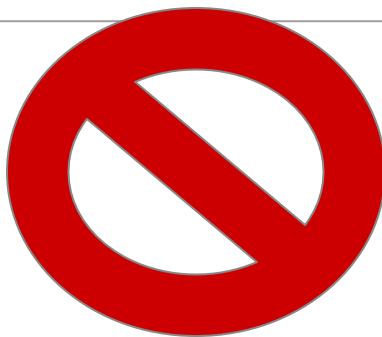


Using zero as a placeholder when recording money

This time there are no 10 **pences** (or **tenths** of a pound).

£1 (or 100p)	10p	1p
2		3

£	2	.	3
---	---	---	---

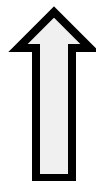


Using zero as a placeholder when recording money

This time there are no 10 **pences** (or **tenths** of a pound).

£1 (or 100p)	10p	1p
2	0	3

£	2	.	3
---	---	---	---



So what do we need
to do here?

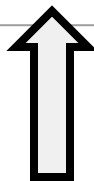


Using zero as a placeholder when recording money

Again, add a **placeholder** zero.

£1 (or 100p)	10p	1p
2	0	3

£	2	.		3
---	---	---	--	---

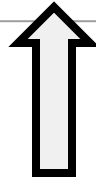


Using zero as a placeholder when recording money

Again, add a **placeholder** zero. We read it as 'two pounds three' or 'two pounds and three pence'.

£1 (or 100p)	10p	1p
2	0	3

£	2	.	0		3
---	---	---	---	--	---



Using zero as a placeholder when recording money

Where do you predict the **placeholder** will go?

£1 (or 100p)	10p	1p

£		
---	--	--



Using zero as a placeholder when recording money

£1 (or 100p)	10p	1p
6		

£	6	
---	---	--



Using zero as a placeholder when recording money

£1 (or 100p)	10p	1p
6	0	

£	6	•	0	
---	---	---	---	--



Using zero as a placeholder when recording money

£1 (or 100p)	10p	1p
6	0	9

£	6	•	0	9
---	---	---	---	---



Using zero as a placeholder when recording money



Jacob has written down the money total. Is he correct? Explain your answer.

No. We use 2 decimal places writing money using decimal notation.

£2.4



Is Jacob correct? Explain your answer.

No. There are four 10p coins. He has put them in the pennies column. It should be £2.40.

£2.04



Task B

Using zero as a placeholder when recording money



1) Write the following money totals and practise saying them in two different ways.



Task B

Using zero as a placeholder when recording money



Practice



Task B

Using zero as a placeholder when recording money



2) Using the digits 0, 3 and 7, how many different values of money can you write? Can you say them in different ways? Only use each digit once per value.



Task B

Using zero as a placeholder when recording money

- 1) Write the following money totals and practise saying them in two different ways.



£7.20



£6.05



Task B

Using zero as a placeholder when recording money



Feedback



£4.50



£10.03



Task B

Using zero as a placeholder when recording money



2) Using the digits 0, 3 and 7, how many different values of money can you write? Can you say them in different ways? Only use each digit once per value.

£0.37

£0.73

£3.07

£3.70

£7.03

£7.30



Summary

Explain and represent whole pounds and pence as a quantity of money

When we are recording **pounds** and **pence**, we always use two decimal places, e.g. £6.83.

When the 10 **pence** column is blank, we use a **placeholder** zero, e.g. £6.03

We also use a **placeholder** zero if the 1 **pence** column is blank, e.g. £6.80.



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