

# Estimating Money

4



Fluency & Reasoning Teaching Slides

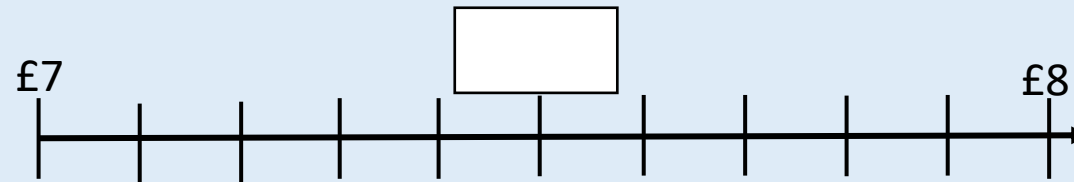
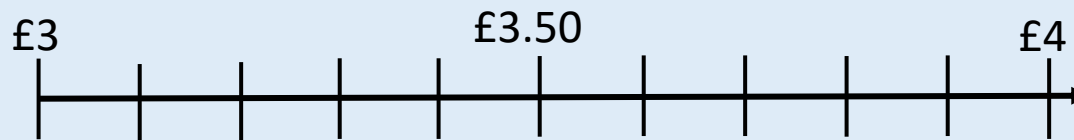
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## Activity 1

## Estimating Money

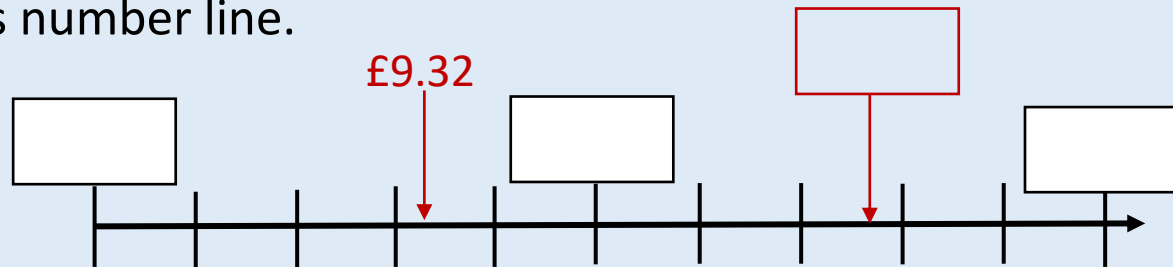
Place the amounts on the number line and round to the nearest pound.

- £3.67
- £3.21
- £3.87



- £7.54
- £7.45
- 701p

Complete this number line.



?

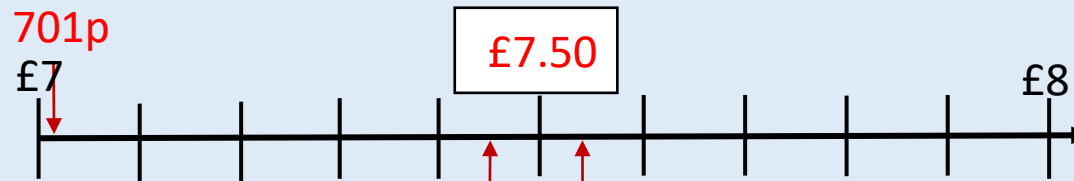
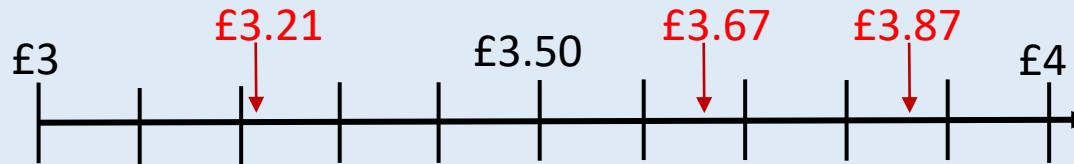
*If we have £5, where will it go on the number line?*

# Activity 1

## Estimating Money

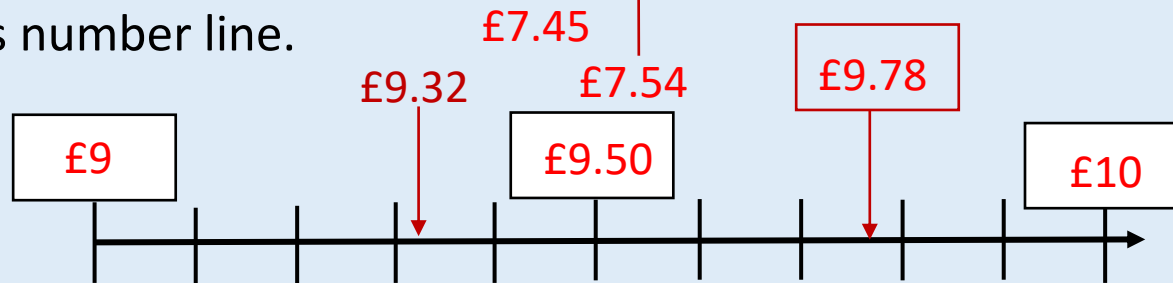
Place the amounts on the number line and round to the nearest pound.

- £3.67
- £3.21
- £3.87



- £7.54
- £7.45
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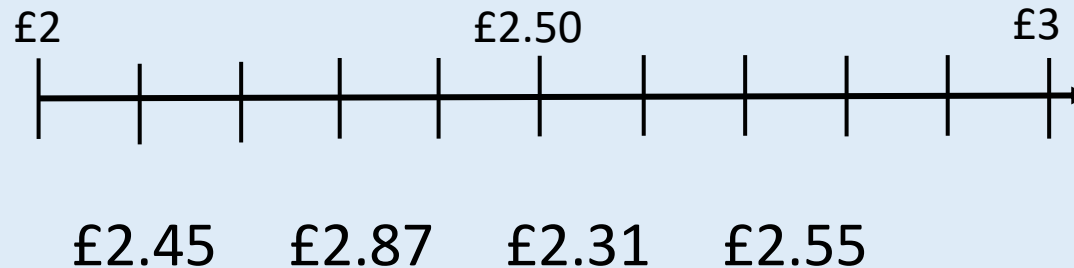
Complete this number line.



## Activity 2

## Estimating Money

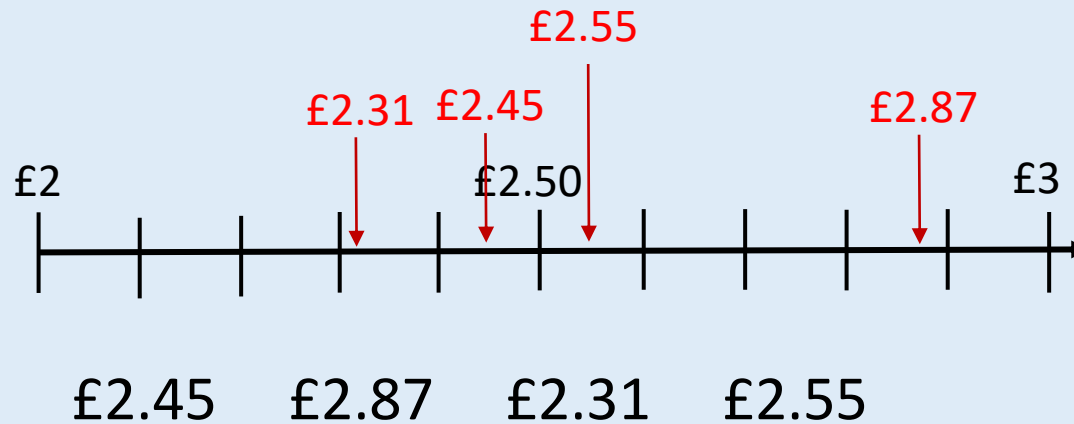
Place the amounts on the number line and round to the nearest pound.



## Activity 2

## Estimating Money


Place the amounts on the number line and round to the nearest pound.



## Activity 3

## Estimating Money

Complete the table by rounding each amount and finding the total.

Item 1	Item 2	Approximate total
 £5.63	 £1.76	
 £3.05	 £11.54	

?

*How much will they total altogether?*

## Activity 3

## Estimating Money

Complete the table by rounding each amount and finding the total.

Item 1	Item 2	Approximate total
 £5.63	 £1.76	£7.40
 £3.05	 £11.54	£14.60

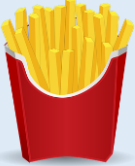



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*Was your answer the same or different?*

## Activity 4

## Estimating Money

Complete the table by rounding each amount and finding the total.

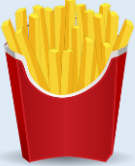



Item 1	Item 2	Approximate total
 £2.82	 £2.11	
 £5.62	 £2.52	



## Activity 4

## Estimating Money

Complete the table by rounding each amount and finding the total.

Item 1	Item 2	Approximate total
 £2.82	 £2.11	£5.00
 £5.62	 £2.52	£8.00

## Activity 5

## Estimating Money

Annie has £15 to spend at the theme park.  
She rides on the roller coaster, which costs £4.34.  
Then she rides on the big wheel, which costs £3.85.  
Approximately how much money will she have left?



## Activity 5

## Estimating Money

Annie has £15 to spend at the theme park.  
She rides on the roller coaster, which costs £4.34.  
Then she rides on the big wheel, which costs £3.85.  
Approximately how much money will she have left?



$$£4.34 + £3.85 = £8.19$$

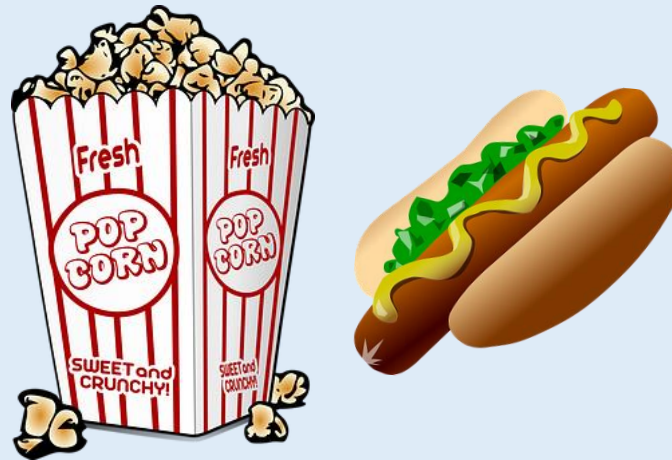
$$£15 - £8.19 = £6.81$$

Annie will have £6.81 left, so approximately  
£6.80.

## Activity 6

## Estimating Money

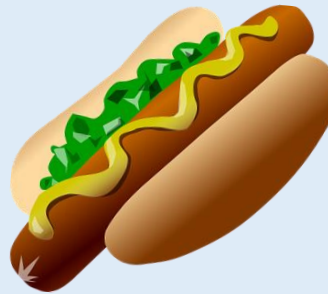
Sam has £15 to spend at the cinema.  
He buys a large popcorn, which costs £4.67.  
He also buys a hotdog and a drink, which cost £7.43.  
How much change will he approximately receive?



## Activity 6

## Estimating Money

Sam has £15 to spend at the cinema.  
He buys a large popcorn, which costs £4.67.  
He also buys a hotdog and a drink, which cost £7.43.  
How much change will he approximately receive?



$$£4.67 + £7.43 = £12.10$$

$$£15 - £12.10 = £2.90$$

Sam will receive £2.90.

## Reasoning 1

## Estimating Money

Three children buy toys. Can you work out who buys what? Rosie buys a toy, which rounds to £5 but gets change from £5. Esin buys two toys, which total approximately £25.

Leanna's toy costs 5p more than the number the cost rounds to.



If you had £30, what combinations could you buy and what change would you approximately get?

## Reasoning 1

## Estimating Money

Three children buy toys. Can you work out who buys what? Rosie buys a toy, which rounds to £5 but gets change from £5. Esin buys two toys, which total approximately £25.

Leanna's toy costs 5p more than the number the cost rounds to.



Rosie – car

Esin – computer game  
and rugby ball

Leanna – panda

If you had £30, what combinations could you buy and what change would you approximately get?

Various answers.



Malachi buys some socks and gloves. He estimates how much he'll spend. What could the actual price of the socks and gloves have been? Malachi has £12. He says he has enough money to buy three pairs of socks. Do you agree? Explain why.



$$£4 + £5 = £9$$



## Reasoning 2

## Estimating Money

Malachi buys some socks and gloves. He estimates how much he'll spend. What could the actual price of the socks and gloves have been? Malachi has £12. He says he has enough money to buy three pairs of socks. Do you agree? Explain why.



$$£4 + £5 = £9$$

The socks could cost between £3.50 and £4.49. The gloves could cost between £4.50 and £5.49.

It depends. If the socks costs £3.50 to £4, he will. If the socks cost £4.01 to £4.49, he will not.

If we have \_\_\_\_, what whole numbers/pounds does this come in between? Where will it go on the number line? Which pound amount is it nearer to?

What does 'estimate' mean? What does 'approximately' mean?

Where would be a sensible place to start labelling the number line?

What will each amount round to? How much will they total altogether?

If you had \_\_\_\_, would you have enough to buy the items?

# Four Operations

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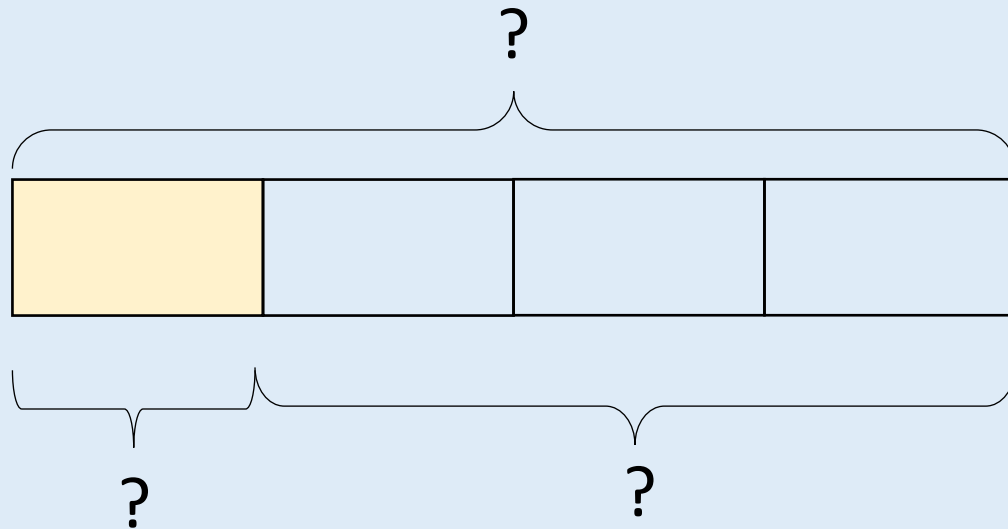
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## Activity 1

## Four Operations

Tia has £48. She spends one quarter of her money.  
How much does she have left?  
Use the bar model to help.



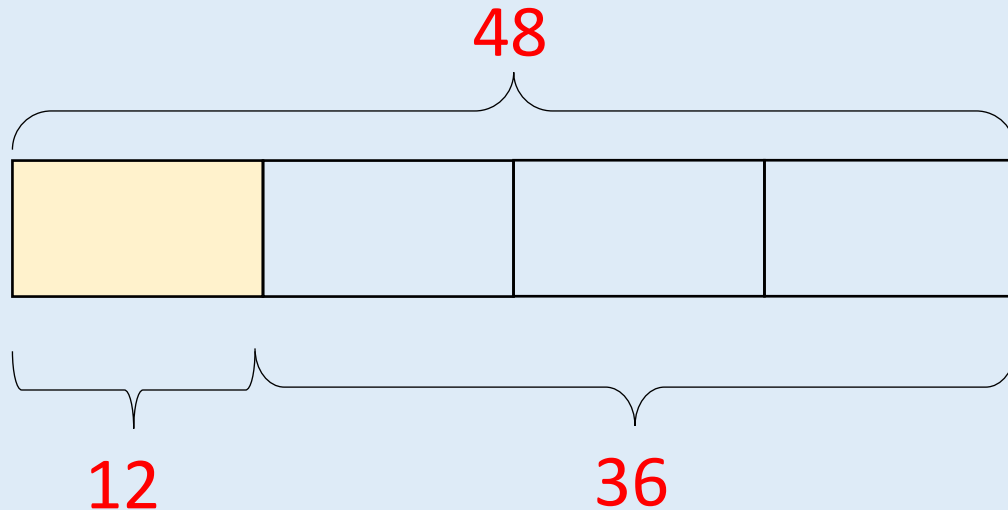
?

*How can we label the bar model?*

## Activity 1

## Four Operations

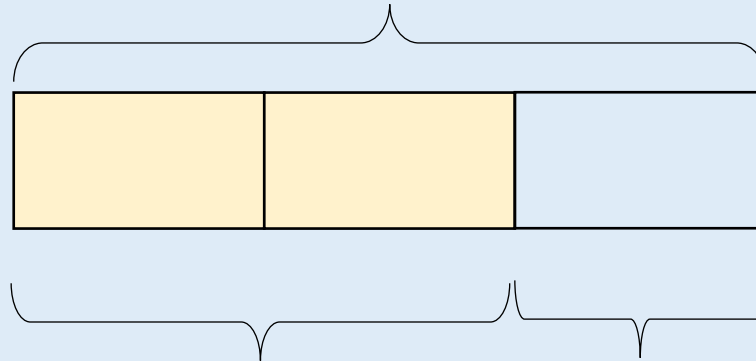
Tia has £48. She spends one quarter of her money.  
How much does she have left?  
Use the bar model to help.



## Activity 2

## Four Operations

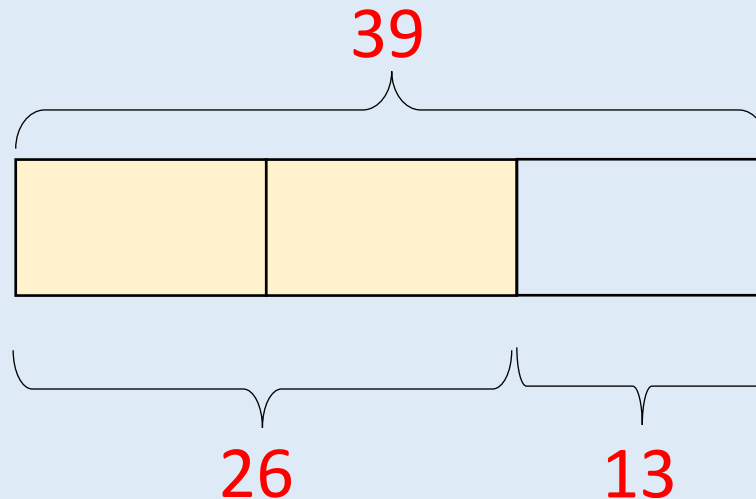
Theresa has £39. She spends two thirds of her money.  
How much money does she have left?  
Use the bar model to help you.



## Activity 2

## Four Operations

Theresa has £39. She spends two thirds of her money.  
How much money does she have left?  
Use the bar model to help you.



## Activity 3

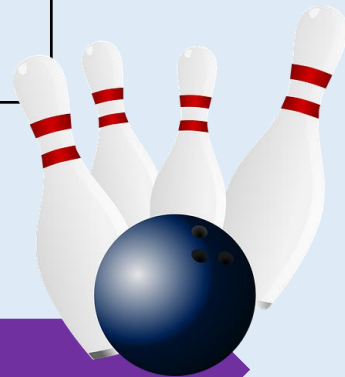
## Four Operations

A family is going bowling.

How much does it cost for 1 child and 1 adult at peak time?

How much does it cost for 1 adult and 2 children off peak?

Tickets	Peak	Off Peak
Adult	£8	£6
Child	£4.20	£5.30



?

*What operation will we use?*



## Activity 3

## Four Operations

A family is going bowling.

How much does it cost for 1 child and 1 adult at peak time?

How much does it cost for 1 adult and 2 children off peak?

Tickets	Peak	Off Peak
Adult	£8	£6
Child	£4.20	£5.30

1 child and 1 adult → £12.20

1 adult and 2 children → £16.60



## Activity 4

## Four Operations

A family is going to the cinema.

How much does it cost for 2 adults and 1 child on the weekend?

How much does it cost for 1 adult and 1 child on a weekday?

How much does it cost  
for 3 adults and 2 children on a weekday?

Tickets	Weekday	Weekend
Adult	£6	£9
Child	£4.40	£6.50



## Activity 4

## Four Operations

A family is going to the cinema.

How much does it cost for 2 adults and 1 child on the weekend?

How much does it cost for 1 adult and 1 child on a weekday?

How much does it cost  
for 3 adults and 2 children on a weekday?

Tickets	Weekday	Weekend
Adult	£6	£9
Child	£4.40	£6.50

2 adults and 1 child → £24.50

1 adult and 1 child → £10.40

3 adults and 2 children → £26.80



## Activity 5

## Four Operations

Zach buys some clothes in a half-price sale.

What would the full price of each item be?

How much would he have paid altogether if they were full price?

How much does he pay in the sale? How much does he save?



*What operation will we use?*

## Activity 5

## Four Operations

Zach buys some clothes in a half-price sale.

What would the full price of each item be?

How much would he have paid altogether if they were full price?

How much does he pay in the sale? How much does he save?



Joggers: £28   Scarf: £14   Hat: £5   T-shirt: £13

Total (full price) = £60   Total (sale price) = £30

Zach has saved £30

## Activity 6

## Four Operations

Jon went to a clothes sale and bought the following at half price.  
How much would the clothes have been full price?  
What would the total cost be full price?  
How much is the total cost in the sale?  
How much has Jon saved?



## Activity 6

## Four Operations

Jon went to a clothes sale and bought the following at half price.  
How much would the clothes have been full price?  
What would the total cost be full price?  
How much is the total cost in the sale?  
How much has Jon saved?



Jeans: £15    Cap: £5    T-shirt: £16    Long-sleeved top: £30

Total (full price) = £66    Total (sale price) = £33

Jonathan has saved £33

A class has £100 to spend on books.  
How many books could they buy for £100?  
How many different ways can this be done?

## Book Prices

Hardback = £8

Paperback = £4





A class has £100 to spend on books.  
How many books could they buy for £100?  
How many different ways can this be done?

### Book Prices

Hardback = £8

Paperback = £4

Children may explore this systematically, e.g.  $8 \times 12 = 96$  (12 hardbacks),  $4 \times 1 = 4$  (1 paperback), etc. Or they may start with paperbacks:  $4 \times 25 = 100$  (25 paperbacks), etc.

Zach buys a teddy bear for £6.00, a board game for £4.00, a CD for £5.50 and a box of chocolates for £2.50.

He has some discount vouchers.

He can either get £10.00 off or pay half price for his items.  
Which voucher would save him more? Explain your thinking.



£10.00 off!



Half price!

Zach buys a teddy bear for £6.00, a board game for £4.00, a CD for £5.50 and a box of chocolates for £2.50.

He has some discount vouchers.

He can either get £10.00 off or pay half price for his items.  
Which voucher would save him more? Explain your thinking.

$$\text{Total} = \text{£}18$$

$$18 - 10 = 8$$

$$\frac{1}{2} \text{ of } 18 = 9$$

$$18 - 9 = 9$$

The £10 voucher would save him more.

Here is Dora's receipt. Use the information to complete the receipt: (1) the sandwich costs £2.15 more than the crisps, (2) the orange juice is the same price as the crisps and banana together, (3) the banana is half the price of the crisps.

Receipt	
Sandwich	
Orange juice	
Crisps	60p
Banana	
<b>TOTAL</b>	

Here is Dora's receipt. Use the information to complete the receipt: (1) the sandwich costs £2.15 more than the crisps, (2) the orange juice is the same price as the crisps and banana together, (3) the banana is half the price of the crisps.

Receipt	
Sandwich	£2.75
Orange juice	90p
Crisps	60p
Banana	30p
<b>TOTAL</b>	<b>£4.55</b>

How can we label the bar model?

What other questions could we ask?

What operation will we use?

How can we partition pounds and pence to help add two amounts?

Is there an alternative way to answer this question?