

Lesson 7 – Measurement: Money – Find the Total

NC Objective:

Solve problems with addition and subtraction involving measures.

Resources needed:

Differentiated Sheets
Teaching Slides

Vocabulary:

Money, addition, count on, partitioning, regrouping, strategy, efficient, total, amount

Children will build on their knowledge of addition to add money including:

- 2-digit and 2-digit
- 2-digit and ones
- 2 digit and tens
- 3-single digits

Children will be encouraged to use different methods to add the amounts of money, such as count on, partitioning and regrouping.

Key Questions:

How did you find the missing amounts? Share your strategies with a friend.

Was your method different to a friend?

What is the most efficient method? Why?

Can you write a worded question for a friend?

What was the greatest amount you found?

★ Working Towards

Find the total for the money.

£1	50p	£1 and 50p	£1	40p	£1 and 40p
£2	20p	£2 and 20p	£1	50p	£1 and 50p
£2	10p	£2 and 10p	£1	10p	£1 and 10p
£1	10p	£1 and 10p	£1	50p	£1 and 50p

Find the total for the money.

5p	10p	40p	20p	10p	10p
1p	7p	7p	5p	4p	7p
2p	7p	7p	2p	7p	7p

What is the missing amount?

How much did each item cost?

★★ Working Within

Find the total for the money.

£1	50p	£1 and 50p	£1	40p	£1 and 40p
£2	20p	£2 and 20p	£1	50p	£1 and 50p
£2	10p	£2 and 10p	£1	10p	£1 and 10p
£1	10p	£1 and 10p	£1	50p	£1 and 50p

Find the total for the money.

5p	10p	40p	10p	10p	10p
1p	7p	7p	5p	4p	7p
2p	7p	7p	2p	7p	7p

What is the missing amount?

How much did each item cost?

★★★ Greater Depth

Find the total for the money.

£1	50p	£1 and 50p	£1	40p	£1 and 40p
£2	20p	£2 and 20p	£1	50p	£1 and 50p
£2	10p	£2 and 10p	£1	10p	£1 and 10p
£1	10p	£1 and 10p	£1	50p	£1 and 50p

Find the total for the money.

5p	10p	40p	20p	10p	10p
1p	7p	7p	5p	4p	7p
2p	7p	7p	2p	7p	7p

What is the missing amount?

How much did each item cost?

Children on this sheet have a simple table in order for them to understand that pounds and pence can be combined.

They move on to adding money using the bar method and methods of their choice. These questions cover addition objectives: 2-digit numbers and ones, 2-digit numbers and tens, 2-digit numbers and 2-digit numbers and three one-digit numbers. Children do not cross tens.

Children on this sheet have a table in order for them to understand that pounds and pence can be combined. There are missing values for children to find.

They move on to adding money using the bar method and methods of their choice. Children need to understand that there are 100 pence in £1 and use this knowledge to find missing numbers.

Children on this sheet have a table in order for them to understand that pounds and pence can be combined. Children have an extra column to work out the missing number in order for it to total the amount given.

They move on to adding money using the bar method and methods of their choice. Children then add 3 amounts to find the total.

Reasoning & Problem Solving

Leanna has these coins and notes.

Here is a shopping list.

Item	Price
Pen	43p
Pencil	43p

She makes an amount greater than £30 but less than £50. You can use each coin or note more than once. How many different ways can you find?

Leanna has these coins and notes.

Here is a shopping list.

Item	Price
Pen	43p
Rubber	21p
Pen	43p
Scissors	42p
Glue	39p
Notepad	42p

I spend exactly 70p. Which two items could I buy? What was the item?

I bought 2 of the same item and it cost me 80p. What was the item?

Choose two items. Make three different amounts.

Leanna has some coins and these notes.

Here is a shopping list.

Item	Price
Pen	37p
Rubber	16p
Pen	42p
Scissors	42p
Glue	38p
Notepad	28p

I spend exactly £1. How many different ways can you find?

I bought 3 of the same item and it cost me 78p. What was the item?

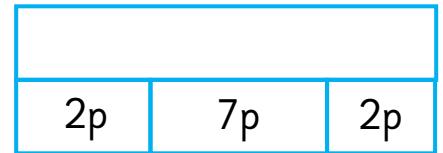
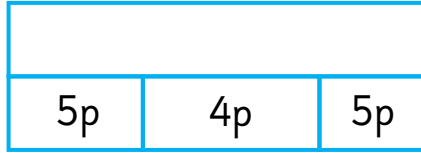
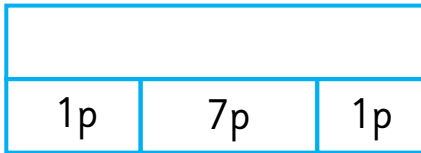
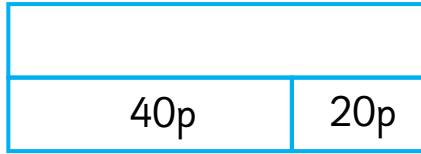
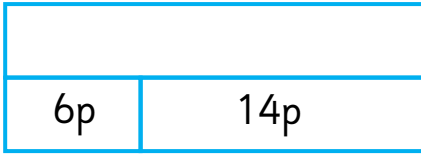
Choose two items. How many different amounts can you make?

Write the total amounts.

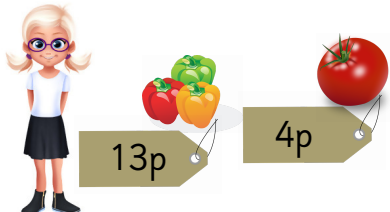
Pounds	Pence	Total
£5	66p	£_____ and _____p
£3	24p	£_____ and _____p
£2	70p	£_____ and _____p
£1	31p	£_____ and _____p

Pounds	Pence	Total
£4	49p	£_____ and _____p
£1	50p	£_____ and _____p
£6	11p	£_____ and _____p
£7	4p	£_____ and _____p


Find the total of the bar models.



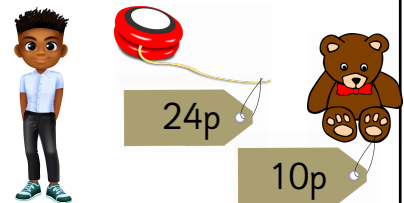
Look at the items the children bought.
How much did each child spend?



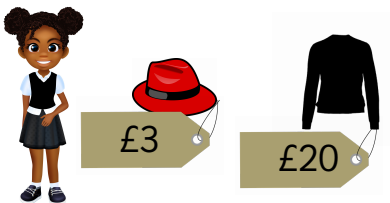
_____ pence



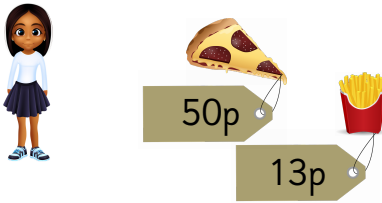
_____ pounds




_____ pence



_____ pounds



_____ pence



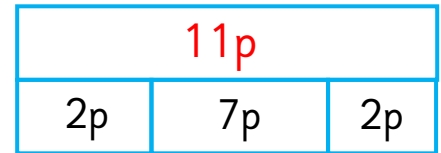
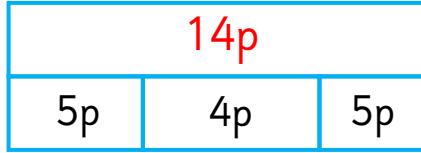
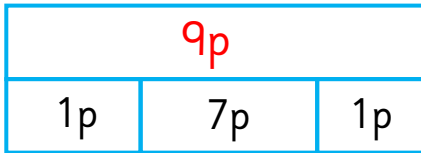
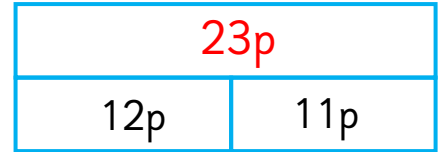
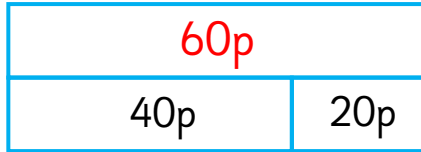
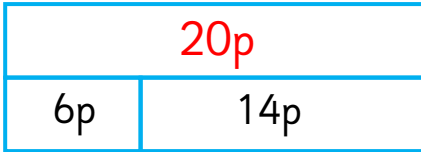

_____ pence

Write the total amounts.


Pounds	Pence	Total
£5	66p	£ <u>5</u> and <u>66</u> p
£3	24p	£ <u>3</u> and <u>24</u> p
£2	70p	£ <u>2</u> and <u>70</u> p
£1	31p	£ <u>1</u> and <u>31</u> p

Pounds	Pence	Total
£4	49p	£ <u>4</u> and <u>49</u> p
£1	50p	£ <u>1</u> and <u>50</u> p
£6	11p	£ <u>6</u> and <u>11</u> p
£7	4p	£ <u>7</u> and <u>4</u> p

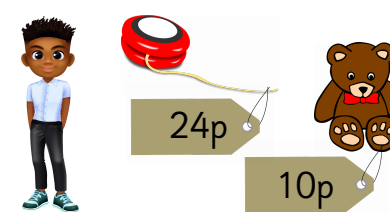
Find the total of the bar models.

Look at the items the children bought.
How much did each child spend?


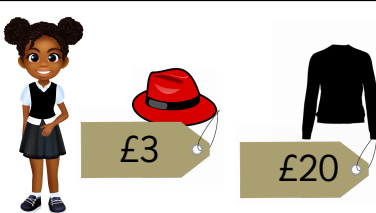
17 pence



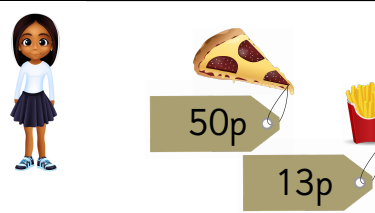
70 pounds



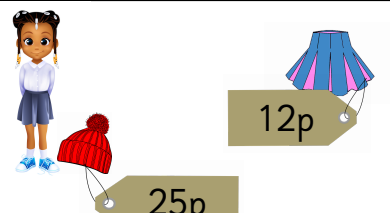
34 pence



23 pounds



63 pence



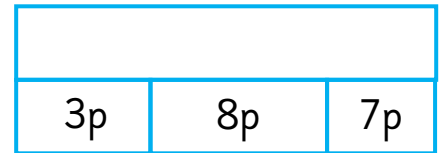
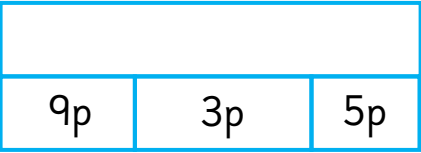
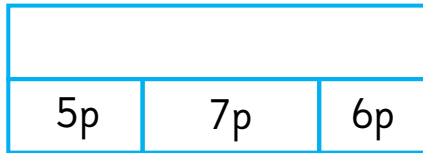
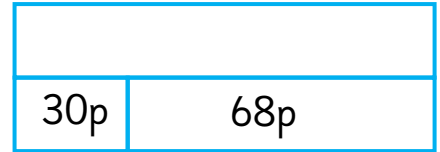
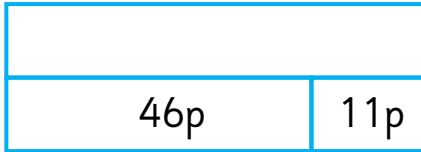
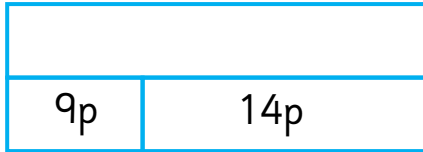
37 pence

Complete the table.

Pounds	Pence	Total
£5	66p	£_____ and ____p
£3	24p	£_____ and ____p
£10		£10 and 45p
£46		£46 and 22p

Pounds	Pence	Total
	89p	£6 and 89p
	31p	£12 and 31p
£25		£25 and 78p
		£18 and 34p

Find the total of the bar models.



Look at the items the children bought.
How much did each child spend?

_____ pence

_____ pounds

_____ pence

_____ pounds

_____ pence

_____ pence

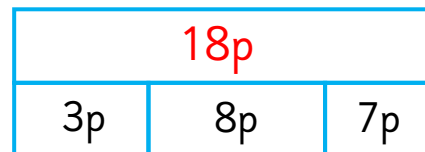
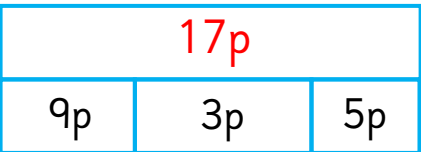
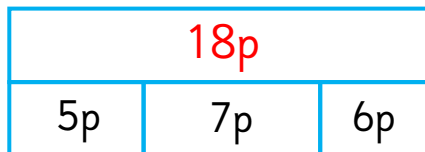
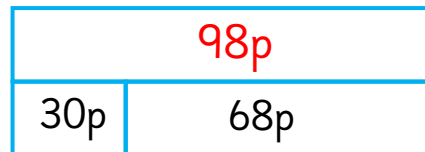
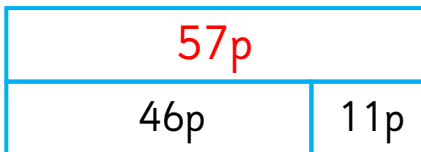
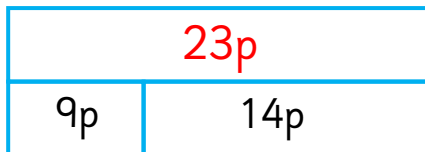


Complete the table.

Pounds	Pence	Total
£5	66p	£ <u>5</u> and <u>66</u> p
£3	24p	£ <u>3</u> and <u>24</u> p
£10	45p	£10 and 45p
£46	22p	£46 and 22p

Pounds	Pence	Total
£6	89p	£6 and 89p
£12	31p	£12 and 31p
£25	78p	£25 and 78p
£18	34p	£18 and 34p

Find the total of the bar models.



Look at the items the children bought.
How much did each child spend?

51 pence

91 pounds

73 pence

23 pounds

68 pence

100 pence

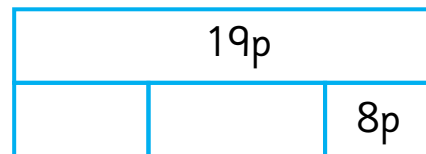
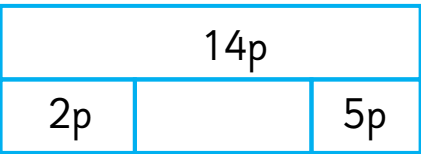
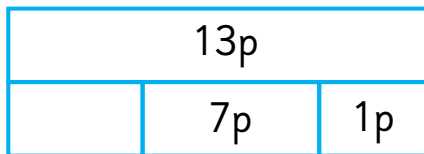
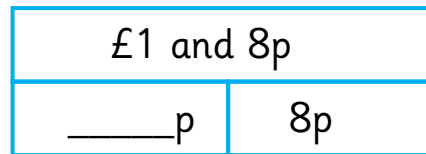
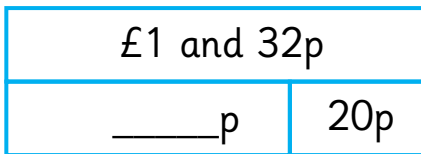
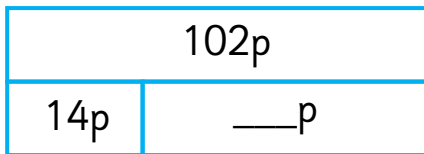


What is the missing amount?

Pounds	Pence	?	Total
£5	66p		£9 and 66p
£3	24p		£3 and 56p
£10	11p		£14 and 11p
£46	70p		£47 and 0p

Pounds	Pence	?	Total
£7	32p		£7 and 99p
£2	67p		£41 and 67p
£45	54p		£88 and 54p
£56	48p		£100 and 48p

Find the total of the bar models.



Look at the items the children bought.
How much did each child spend?

_____ pence

_____ pounds

_____ pence

_____ pounds

_____ pence

_____ pence

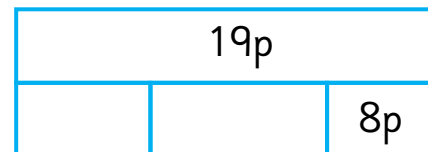
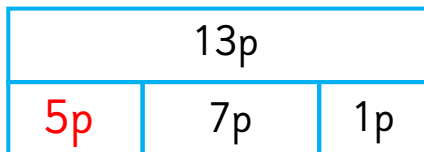
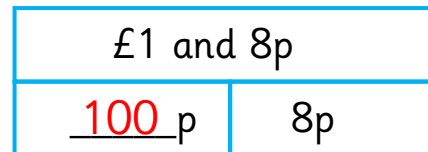
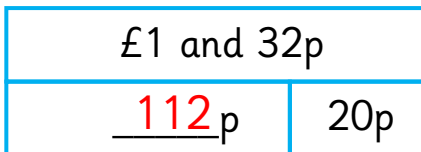
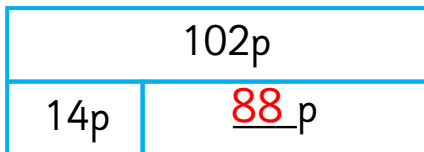


What is the missing amount?

Pounds	Pence	?	Total
£5	66p	£4	£9 and 66p
£3	24p	32p	£3 and 56p
£10	11p	£4	£14 and 11p
£46	70p	30p	£47 and 0p

Pounds	Pence	?	Total
£7	32p	67p	£7 and 99p
£2	67p	£39	£41 and 67p
£45	54p	£43	£88 and 54p
£56	48p	£44	£100 and 48p

Find the total of the bar models.



multiple answers

Look at the items the children bought.
How much did each child spend?

<u>74</u> pence

<u>83</u> pounds

<u>88</u> pence

<u>55</u> pounds

<u>90</u> pence

<u>88</u> pence

Leanna has these coins and notes.



She makes an amount of £20 using coins and notes.

Draw the money she could have used.

You can use each coin or note more than once.

How many different ways can you find?

Here is a shopping list.

Item	Price
Pencil	20 p
Rubber	50 p
Pen	60 p
Scissors	30 p
Glue	10 p
Notebook	70 p



I spend exactly 80 p.
Which two items could I buy?

I bought 2 of the same item and it cost me 60 p.
What was the item?

Leanna has these coins and notes.



She makes an amount of £20 using coins and notes.

Draw the money she could have used.

You can use each coin or note more than once.

How many different ways can you find?

Here is a shopping list.

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Pencil	20 p
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What was the item?



Leanna has these coins and notes.



She makes an amount of £20.

Draw the money she could have used.

You can use each coin or note more than once.

How many different ways can you find?

Here is a shopping list.



Item	Price
Pencil	45 p
Rubber	27 p
Pen	52 p
Scissors	60 p
Glue	33 p
Notebook	45 p



I spend exactly 70 p.
Which two items could I buy?

I bought 2 of the same item and it cost me 90 p.
What was the item?



Leanna has these coins and notes.



She makes an amount of £20.

Draw the money she could have used.

You can use each coin or note more than once.

How many different ways can you find?

Here is a shopping list.



Item	Price
Pencil	45 p
Rubber	27 p
Pen	52 p
Scissors	60 p
Glue	33 p
Notebook	45 p



I spend exactly 70 p.
Which two items could I buy?

I bought 2 of the same item and it cost me 90 p.
What was the item?

Leanna has these coins and notes.



She makes an amount of £20.

Draw the money she could have used.

You can use each coin or note more than once.

How many different ways can you find?

There are two combinations.

- 1) One £10 note, one £5 note, two £2 coins and one £1 coin.
- 2) One £10 note, one £5 note, one £2 coin and two £1 coins.

Here is a shopping list.

Item	Price
Pencil	45 p
Rubber	27 p
Pen	52 p
Scissors	60 p
Glue	33 p
Notebook	45 p



I spend exactly 70 p.

Which two items could I buy?

Rubber and glue ($27\text{ p} + 33\text{ p} = 70\text{ p}$)

I bought 2 of the same item and it cost me 90 p.

What was the item?

Two notebooks or two pencils ($45\text{ p} + 45\text{ p} = 90\text{ p}$)

Leanna has these coins and notes.



She makes an amount of £20.

Draw the money she could have used.

You can use each coin or note more than once.

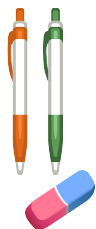
How many different ways can you find?

There are two combinations.

- 1) One £10 note, one £5 note, two £2 coins and one £1 coin.
- 2) One £10 note, one £5 note, one £2 coin and two £1 coins.

Here is a shopping list.

Item	Price
Pencil	45 p
Rubber	27 p
Pen	52 p
Scissors	60 p
Glue	33 p
Notebook	45 p



I spend exactly 70 p.

Which two items could I buy?

Rubber and glue ($27\text{ p} + 33\text{ p} = 70\text{ p}$)

I bought 2 of the same item and it cost me 90 p.

What was the item?

Two notebooks or two pencils ($45\text{ p} + 45\text{ p} = 90\text{ p}$)



Leanna has these coins and notes.



She makes an amount greater than £30 but less than £50.

Draw the money she could have used.

You can use each coin or note more than once.

How many different ways can you find?

Here is a shopping list.

Item	Price
Pencil	43 p
Rubber	25 p
Pen	40 p
Scissors	62 p
Glue	30 p
Notebook	45 p



I spend exactly 70 p.
Which two items could I buy?

I bought 2 of the same item and it cost me 80 p.
What was the item?

Choose two items.
Make three different amounts.



Leanna has these coins and notes.



She makes an amount greater than £30 but less than £50.

Draw the money she could have used.

You can use each coin or note more than once.

How many different ways can you find?

Here is a shopping list.

Item	Price
Pencil	43 p
Rubber	25 p
Pen	40 p
Scissors	62 p
Glue	30 p
Notebook	45 p



I spend exactly 70 p.
Which two items could I buy?

I bought 2 of the same item and it cost me 80 p.
What was the item?

Choose two items.
Make three different amounts.



Leanna has these coins and notes.



She makes an amount greater than £30 but less than £50.

Draw the money she could have used.

You can use each coin or note more than once.

How many different ways can you find?

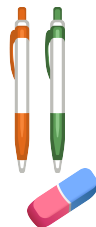
There are many combinations. E.g.

- 1) Twenty £2 coins make £40
- 2) One £10 note, two £5 notes, one £2 coin and ten £1 coins make £32.

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Here is a shopping list.

Item	Price
Pencil	43 p
Rubber	25 p
Pen	40 p
Scissors	62 p
Glue	30 p
Notebook	45 p



I spend exactly 70 p.

Which two items could I buy?

Rubber and notebook ($25 \text{ p} + 45 \text{ p} = 70 \text{ p}$)

I bought 2 of the same item and it cost me 80 p.

What was the item?

Two pens ($40 \text{ p} + 40 \text{ p} = 80 \text{ p}$)

Choose two items.

Make three different amounts.

E.g. 1 glue and 1 rubber (55 p); 1 glue and 2 rubbers (80 p); 2 glues and 1 rubber (85 p);



Leanna has these coins and notes.



She makes an amount greater than £30 but less than £50.

Draw the money she could have used.

You can use each coin or note more than once.

How many different ways can you find?

There are many combinations. E.g.

- 1) Twenty £2 coins make £40
- 2) One £10 note, two £5 notes, one £2 coin and ten £1 coins make £32.

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Here is a shopping list.

Item	Price
Pencil	43 p
Rubber	25 p
Pen	40 p
Scissors	62 p
Glue	30 p
Notebook	45 p



I spend exactly 70 p.

Which two items could I buy?

Rubber and notebook ($25 \text{ p} + 45 \text{ p} = 70 \text{ p}$)

I bought 2 of the same item and it cost me 80 p.

What was the item?

Two pens ($40 \text{ p} + 40 \text{ p} = 80 \text{ p}$)

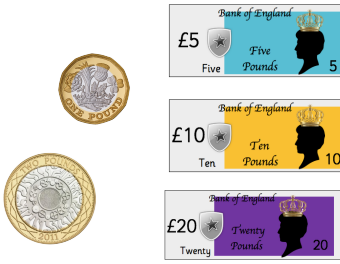
Choose two items.

Make three different amounts.

E.g. 1 glue and 1 rubber (55 p); 1 glue and 2 rubbers (80 p); 2 glues and 1 rubber (85 p);



Leanna has some coins and these notes.



She makes an amount greater than four £5 notes and less than three £20 notes.

Draw the money she could have used.

You can use each coin or note more than once.

How many different ways can you find?

Here is a shopping list.



Item	Price
Pencil	37 p
Rubber	16 p
Pen	45 p
Scissors	62 p
Glue	38 p
Notebook	34 p



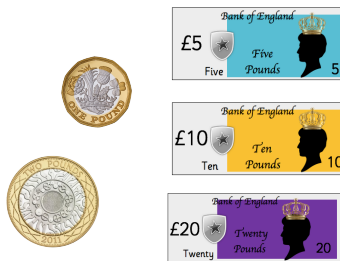
I spend exactly £1.
Which two items could I buy?

I bought 3 of the same item and it cost me 78p.
What was the item?

Choose two items.
How many different amounts can you make?



Leanna has some coins and these notes.



She makes an amount greater than four £5 notes and less than three £20 notes.

Draw the money she could have used.

You can use each coin or note more than once.

How many different ways can you find?

Here is a shopping list.



Item	Price
Pencil	37 p
Rubber	16 p
Pen	45 p
Scissors	62 p
Glue	38 p
Notebook	34 p



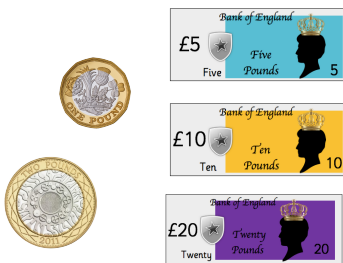
I spend exactly £1.
Which two items could I buy?

I bought 3 of the same item and it cost me 78p.
What was the item?

Choose two items.
How many different amounts can you make?



Leanna has some coins and these notes.



She makes an amount greater than four £5 notes and less than three £20 notes.

More than £20 and less than £60.

Draw the money she could have used.

You can use each coin or note more than once.

How many different ways can you find?

There are many combinations. E.g.

- 1) One £10 note, two £5 notes, five £2 coins.
- 2) Two £10 notes, one £5 note, ten £1 coins.

Here is a shopping list.

Item	Price
Pencil	37 p
Rubber	16 p
Pen	45 p
Scissors	62 p
Glue	38 p
Notebook	34 p



I spend exactly £1.

Which two items could I buy?

Scissors and glue ($62\text{ p} + 38\text{ p} = 100\text{ p} = £1$)

I bought 3 of the same item and it cost me 78p.

What was the item?

3 rubbers ($3 \times 26\text{ p} = 78\text{ p}$)

Choose two items.

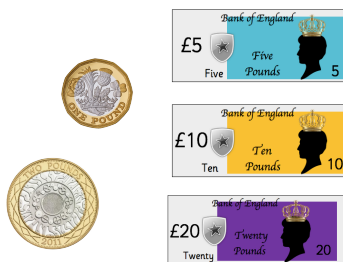
How many different amounts can you make?

There are many combinations. E.g.

1 notebook and 2 rubbers (66 p); 2 notebooks and 2 rubbers ($100\text{ p} = £1$); 2 notebooks and 1 rubber (84 p);



Leanna has some coins and these notes.



She makes an amount greater than four £5 notes and less than three £20 notes.

More than £20 and less than £60.

Draw the money she could have used.

You can use each coin or note more than once.

How many different ways can you find?

There are many combinations. E.g.

- 1) One £10 note, two £5 notes, five £2 coins.
- 2) Two £10 notes, one £5 note, ten £1 coins.

Here is a shopping list.

Item	Price
Pencil	37 p
Rubber	16 p
Pen	45 p
Scissors	62 p
Glue	38 p
Notebook	34 p



I spend exactly £1.

Which two items could I buy?

Scissors and glue ($62\text{ p} + 38\text{ p} = 100\text{ p} = £1$)

I bought 3 of the same item and it cost me 78p.

What was the item?

3 rubbers ($3 \times 26\text{ p} = 78\text{ p}$)

Choose two items.

How many different amounts can you make?

There are many combinations. E.g.

1 notebook and 2 rubbers (66 p); 2 notebooks and 2 rubbers ($100\text{ p} = £1$); 2 notebooks and 1 rubber (84 p);