

Reasoning and Problem Solving

Step 1: Pounds and Pence

Teaching note: We recommend providing children with money to support this step.

National Curriculum Objectives:

Mathematics Year 3: (3M9a) [Add and subtract amounts of money to give change, using both £ and p in practical contexts](#)

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Identify three different combinations of coins needed to pay for two separate items using up to three coins. Where scaffolding for the answer is provided.

Expected Identify three different combinations of notes and coins needed to pay for two separate items.

Greater Depth Identify five different combinations of notes and coins needed to pay for two separate items. No pounds or pence given.

Questions 2, 5 and 8 (Problem Solving)

Developing Draw no more than three notes and coins to represent the given amount.

Expected Draw the notes and coins to represent the given amount.

Greater Depth Draw notes and coins to represent the given amount and calculate the new total when some coins are missing.

Questions 3, 6 and 9 (Reasoning)

Developing Identify who has the correct amount in pounds and pence and explain why. Up to three notes and coins given.

Expected Identify who has the correct amount in pounds and pence and explain why.

Greater Depth Identify who has listed the correct amount in notes and coins and explain why.

More [Year 3 Money](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Pounds and Pence

1a. Look at the menu below.

Cup of tea	_____ p
Hot chocolate	£___ and ___ p

Jack uses 3 coins to buy a cup of tea.
Lucy uses 2 coins to buy a hot chocolate.

Find three possible combinations of coins that Jack and Lucy could use.



PS

Pounds and Pence

1b. Look at the menu below.

Crisps	£___ and ___ p
Chocolate	_____ p

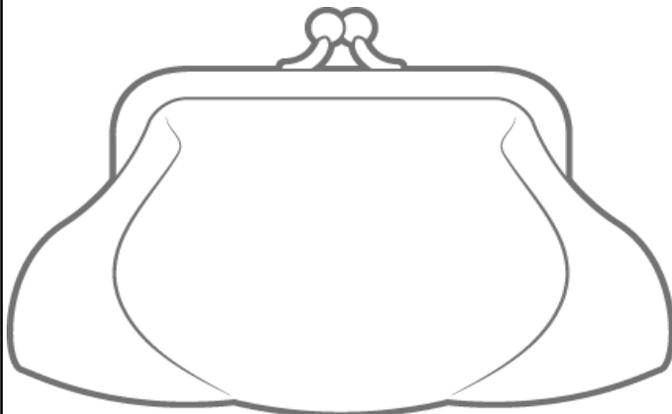
Susan uses 2 coins to buy some crisps.
Elliot uses 3 coins to buy some chocolate.

Find three possible combinations of coins that Susan and Elliot could use.



PS

2a. Draw £2 and 2p in the purse, using no more than three notes or coins.

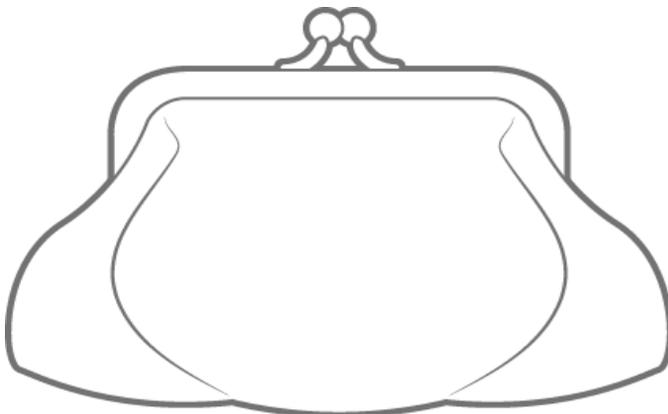


Find one more combination.



PS

2b. Draw £1 and 20p in the purse, using no more than three notes or coins.



Find one more combination.



PS

3a. Brett and Leah are finding the total of the coins below.



I think the total is £4 and 20p.

Brett

I think the total is £3 and 20p.



Leah

Who is correct? Explain why.



R

3b. Luke and Amber are finding the total of the coins below.



I think the total is £2 and 3p.

Luke

I think the total is £2 and 11p.



Amber

Who is correct? Explain why.



R

Pounds and Pence

4a. Look at the pricelist below.

Doll	£8 and ____
Board game	____ and 70p

Tom uses 9 coins to buy the doll and 4 coins to buy the board game.

Find three possible combinations of coins for each item which total less than £10 for each item.



PS

Pounds and Pence

4b. Look at the pricelist below.

Jumper	____ and 46p
T-shirt	£6 and ____

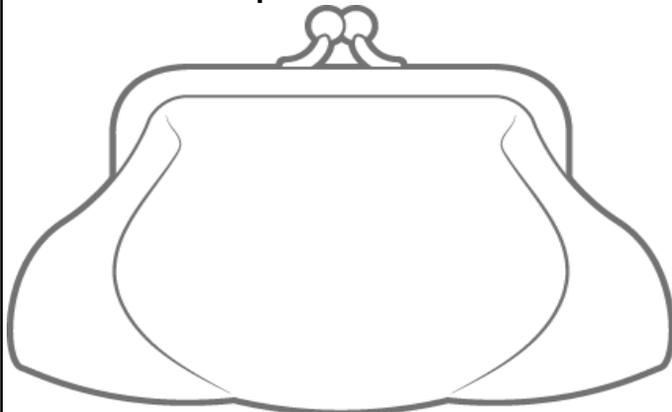
Eddie uses 1 note and up to 6 coins to buy the jumper and 1 note and up to 4 coins to buy the T-shirt.

Find three possible combinations of coins for each item which total less than £10 for each item.



PS

5a. Draw £9 and 75p in the purse, using one note and up to seven coins.

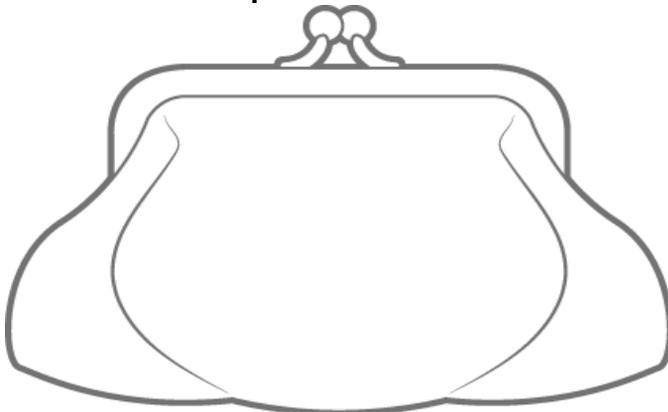


Find one more combination.



PS

5b. Draw £8 and 20p in the purse, using one note and up to five coins.



Find one more combination.



PS

6a. Sasha and Ama are finding the total of the coins below.



Sasha

I think the total is £3 and 62p.

I think the total is £3 and 26p.



Ama

Who is correct? Explain why.



R

6b. Alan and Felix are finding the total of the notes and coins below.



Alan

I think the total is £8 and 30p.

I think the total is £8 and 22p



Felix

Who is correct? Explain why.



R

Pounds and Pence

7a. Look at the pricelist below.

Trousers	___ and ___
Trainers	___ and ___

Ruby uses 1 note and up to 6 coins to buy the trousers. She uses 2 notes and 7 coins to buy trainers.

Find five possible combinations of notes and coins which total less than £20 for each item.



PS

Pounds and Pence

7b. Look at the pricelist below.

Necklace	___ and ___
Ring	___ and ___

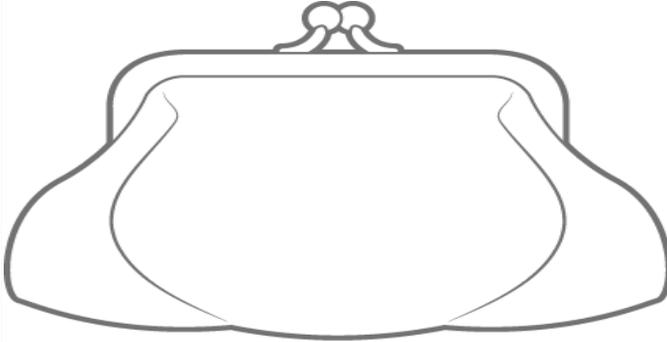
Adele uses up to 2 notes and 6 coins to buy the necklace. She uses up to 3 notes and 7 coins to buy the ring.

Find five possible combinations of notes and coins which total less than £20 for each item.



PS

8a. Draw £17 and 70p in the purse, using two notes and five coins.

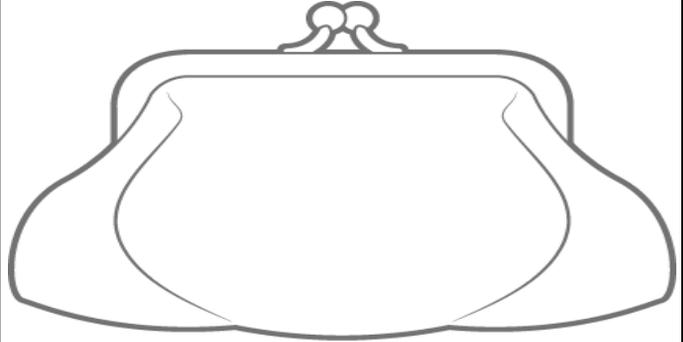


Two coins have fallen out. What is the highest possible total that could be left in the purse?



PS

8b. Draw £14 and 35p in the purse, using one note and five coins.



Two coins have fallen out. What is the lowest possible total that could be left in the purse?



PS

9a. Maria and Neil are finding the total of the notes and coins below.



I think the total is equal to three £5 notes, two £1 coins and seven 10p coins.

I think the total is equal to one £10 note, seven £1 coins and seven 1p coins.



Who is correct? Explain why.



R

9b. Kaleb and Lola are finding the total of the notes and coins below.



I think the total is equal to three £5 notes, three £1 coins, one 20p coin and one 1p coin.

I think the total is equal to one £10 note, eight £1 coins, one 10p and one 2p coin.



Who is correct? Explain why.



R

Reasoning and Problem Solving Pounds and Pence

Developing

1a. Various answers, for example: Jack could use one 50p coin, one 20p coin and one 5p coin (75p); Lucy could use one £1 coin and one 10p coin (£1 and 10p). Three different combinations given for each.

2a. Various answers, for example: One £2 coin and two 1p coins or two £1 coins and one 2p coin.

3a. Leah is correct, because $£2 + £1 + 20p = £3$ and 20p.

Expected

4a. Various answers, for example: Tom could use four £2 coins, one 50p coin, one 20p coin and three 2p coins (£8 and 76p) to buy the doll; He could use two £2 coins, one 50p coins and one 20p coin (£4 and 70p) to buy the board game. Three different combinations given for each.

5a. Various answers, for example: One £5 note, two £2 coins, one 50p coin, one 20p coin and one 5p coin; or one £5 note, one £2 coin, two £1 coins, one 50p coin, two 10p coins and one 5p coin.

6a. Ama is correct because $£2 + £1 + 20p + 5p + 1p = £3$ and 26p.

Greater Depth

7a. Various answers, for example: Ruby could use one £5 note, four £2 coins and one 50p coin and one 20p coin (£13 and 70p) to buy the trousers; She could use two £5 notes, one £2 coin, one £1 coin, two 50p coins, one 20p coin, one 10p coin and one 2p coin (£14 and 32p) to buy the trainers. Five different combinations given for each.

8a. Various answers, for example: One £10 note, one £5 note, one £2 coins, three 20p coins and one 10p coin. If two of these coins fall out the highest possible total left would be £17 and 40p.

9a. Maria is correct because $£10 + £5 + £2 + 50p + 20p = £17$ and 70p.

Reasoning and Problem Solving Pounds and Pence

Developing

1b. Various answers, for example: Susan could use one £1 coin and one 5p coin (£1 and 5p); Elliot could use one 50p coin, one 5p coin and one 2p coin (57p). Three different combinations given for each.

2b. Various answers, for example: One £1 coin and two 10p coins; or two 50p coins and one 20p coin.

3b. Luke is correct, because $2p + 1p + £2 = £2$ and 3p

Expected

4b. Various answers, for example: Eddie could use one £5 note, two 50p coins, two 20p coins, one 5p coin and one 1p coin (£6 and 46p) to buy the jumper. He could use one £5 note, one £1 coin, one 50p coin, one 20p coin and one 5p coin (£6 and 75p) to buy the T-shirt. Three different combinations given for each.

5b. Various answers, for example: One £5 note, one £2 coin, one £1 coin, one 10p coin and two 5p coins; or one £5 note, three £1 coins and one 20p coin.

6b. Felix is correct because $£5 + £2 + £1 + 20p + 2p = £8$ and 22p.

Greater Depth

7b. Various answers, for example: Adele could use one £10 note, one £5 note, one £2 coin, one £1 coin, one 50p coin, two 10p coins and one 5p coin (£18 and 75p) to buy the necklace; She could use three £5 notes, two £1 coins, one 50p coin, two 20p coins and two 10p coins (£18 and 10p) to buy the ring. Five different combinations given for each.

8b. Various answers, for example: One £10 note, two £2 coins, one 20p coin, one 10p coins and one 5p coin. If two of these coins fall out the lowest possible total left would be £10 and 35p.

9b. Kaleb is correct because $£10 + £1 + 20p + 1p + £5 + £2 = £18$ and 21p.