

# Reasoning and Problem Solving

## Step 10: Two-Step Problems

### National Curriculum Objectives:

Mathematics Year 2: (2M9) [Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change](#)

### Differentiation:

Questions 1, 4 and 7 (Reasoning)

**Developing** Add and subtract amounts of money using whole pounds or a multiple of 5 pence in a two-step word problem. Bar model and pictorial scaffolding included.

**Expected** Add and subtract amounts of money in a two-step word problem. Bar model included.

**Greater Depth** Add and subtract amounts of money in a two-step word problem. Children are required to find the amounts of multiple coins, such as two 20p.

Questions 2, 5 and 8 (Problem Solving)

**Developing** Calculate change using whole pounds or a multiple of 5 pence in two-step problems. Pictorial support included.

**Expected** Calculating change in two-step problems using whole pounds or pence up to £1. Some pictorial support.

**Greater Depth** Calculate change using whole pounds or pence in two-step problems. Children are required to find the amounts of multiple coins, such as two 20p.

Questions 3, 6 and 9 (Problem Solving)

**Developing** Add money to reach a given total using whole pounds or a multiple of 5 pence. Children must identify possible coins used. Pictorial support included.

**Expected** Add money to reach a given total using whole pounds or pence up to £1. Children must identify possible coins used.

**Greater Depth** Add money to reach a given total using whole pounds or pence up to £1. Some prices use multiple coins and children must identify possible coins used with the least amount of possible coins.

More [Year 2 Money](#) resources.

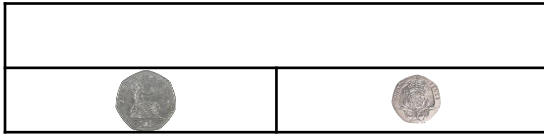
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## Two-Step Problems

1a. Kayden finds a 50p coin.

He puts it with the 20p he has.

Does he have enough to buy the pens?



Explain how you know.



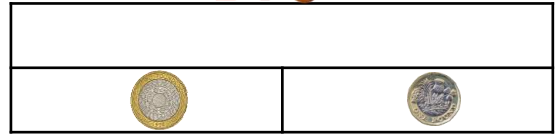
R

## Two-Step Problems

1b. Julianna finds a £2 coin.

She puts it with the £1 coin she has.

Does she have enough to buy the teddy?



Explain how you know.



R

2a. Lina has 60p.



Pears are 55p.

How many pears can she buy?

How much change will she get?



PS

2b. Hamza has £2.



Cakes are £1.

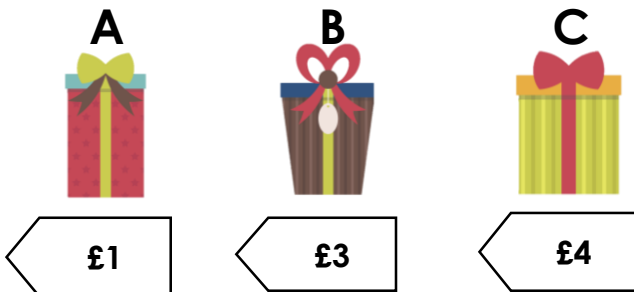
How many cakes can he buy?

How much change will he get?



PS

3a. Emily spends £5. Which 2 items did she buy?

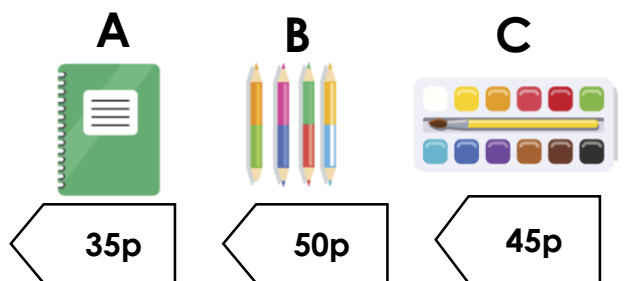


Which combination of coins could she use to pay £5?



PS

3b. Annabel spends 85p. Which 2 items does she buy?



Which combination of coins could she use to pay 85p?



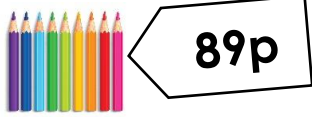
PS

## Two-Step Problems

4a. Bradley finds a 50p coin.

He puts it with the 20p coin and 1p coin he has.

Does he have enough to buy the pencils?



50p	21p

Explain how you know.



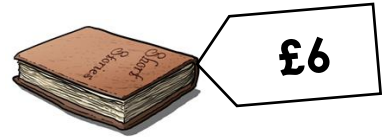
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## Two-Step Problems

4b. Jemma finds £5 note.

She puts it with the £2 coin she has.

Does she have enough to buy the book?



£5 note	£2

Explain how you know.



R

5a. Sofia has 80p.



Peaches are 22p.

How many peaches can she buy?

How much change will she get?



PS

5b. Jamil has 65p.



Bananas are 25p.

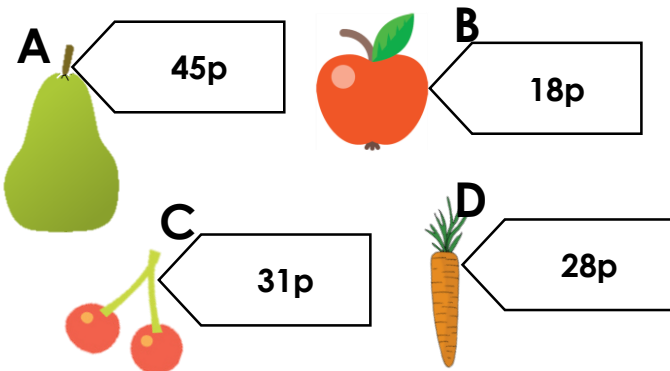
How many bananas can he buy?

How much change will he get?



PS

6a. Hassan spends 73p. Which 2 items does he buy?

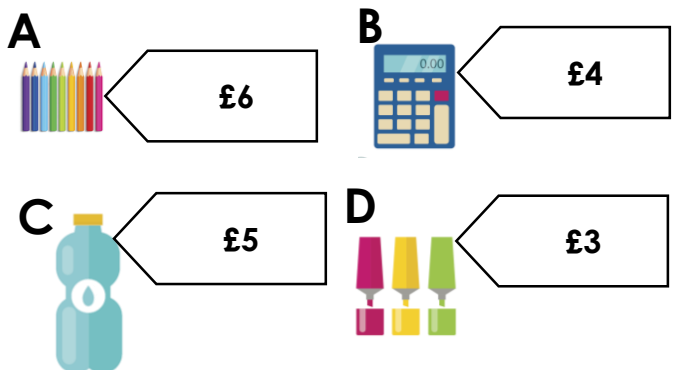


Which combination of coins could he use to pay 73p?



PS

6b. Annabel spends £11. Which 2 items does she buy?



Which combination of notes and coins could she use to pay £11?



PS

## Two-Step Problems

7a. Harley finds a £10 note.

He puts it with the £1 coin and the two £2 coins he has.

Does he have enough to buy the art set?



Explain how you know.



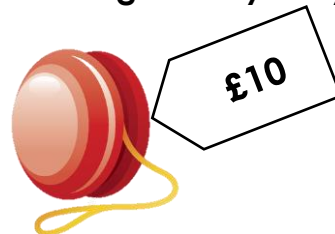
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## Two-Step Problems

7b. Suzannah finds a £5 note.

She puts it with the £1 coin and £2 coin she has.

Does she have enough to buy the yo-yo?



Explain how you know.



R

8a. Aisha has one 50p coin, two 20p coins, three 2p coins and two 1p coins.



A windmill is 28p.

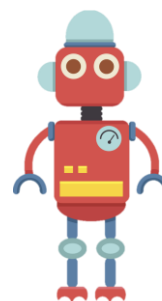
How many windmills can she buy?

How much change will she get?



PS

8b. Hussain has one £20 note, three £1 coins and one £2 coin.



A robot is £10.

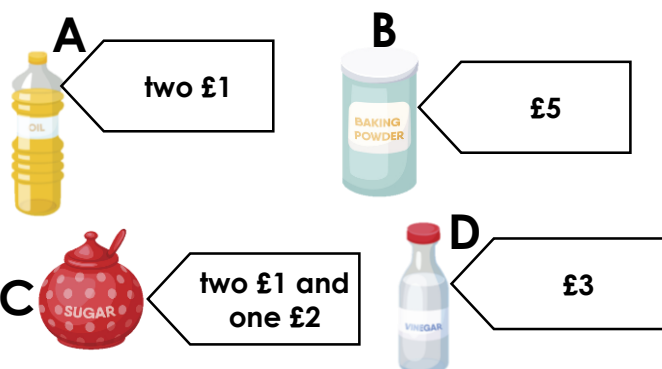
How many robots can he buy?

How much change will he get?



PS

9a. Kevin spends £9. Which 2 items does he buy?

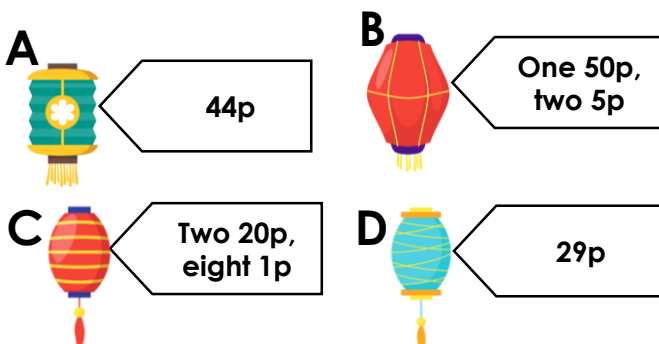


Which combination of coins could he use to pay £9, using the least amount of coins?



PS

9b. Grace spends 73p. Which 2 items does she buy?



Which combination of coins could she use to pay 73p, using the least amount of coins?



PS

## Reasoning and Problem Solving Two-Step Problems

### Developing

- 1a. Yes; he has 70p and the pens are only 60p.  
2a. 1 pear; 5p change.  
3a. A and C. Various coin combinations, for example: £2 + £2 + £1.

### Expected

- 4a. No; he needs 18p more.  
5a. 3 peaches; 14p change  
6a. A and D. Various coin combinations, for example: 50p + 20p + 2p + 1p.

### Greater Depth

- 7a. Yes; he has £15 and the art set is £14.  
8a. 3 windmills; 14p change  
9a. B and C. £2 + £2 + £2 + £2 + £1.

## Reasoning and Problem Solving Two-Step Problems

### Developing

- 1b. Yes; she has £3 and the teddy is £3.  
2b. 2 cakes; no change.  
3b. A and B. Various coin combinations, for example: 50p + 20p + 10p and 5p.

### Expected

- 4b. Yes; she has £7 and the book is £6.  
5b. 2 bananas; 15p change  
6b. A and C. Various note and/or coin combinations, for example: £10 + £1.

### Greater Depth

- 7b. No; she needs £2 more.  
8b. 2 robots; £5 change  
9b. A and D. 50p + 20p + 2p + 1p.