Maths Reasoning Questions – Money Problems

- How do you work out which is the best value? Watch this video to help you.
- How much change will you receive? This video shows you the calculations you will need to perform.

Worked example:

Olivia buys three packets of nuts.

She pays with a **£2 coin**.

This is her change.

What is the cost of **one** packet of nuts?

Show your method

2 marks

- Our task is to work out how much a packet of nuts costs.
- I know Olivia has paid with a £2 coin and received some change.
- By adding those coins, I know she has received 95p change.
- The work out how much the nuts cost, we must subtract £2 from 95p.

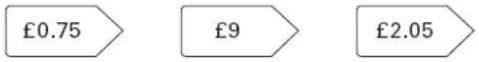
		9	
	1	~~1~~0	10
	~~2~~.	~~0~~	~~0~~
−	0.	9	5
	1.	0	5

- We now know that three packets costs £1.05. To find out how much one packet costs, we must divide £1.05 by three which is **35p.**

Warming up*

1.

Write these prices in order from smallest to largest.



2 and 3

Asif, Vicky and Nita go to town by bus.

This is what they pay.

How much **more** does **Nita** pay than **Asif**?

Answer: _____

Vicky then takes **another** bus from town to visit her auntie.

She pays **90p** on this bus.

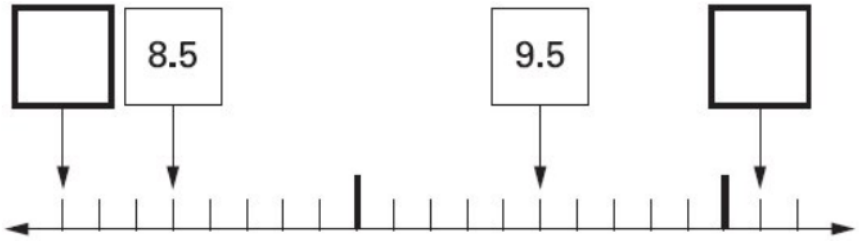
How much has Vicky paid **altogether** for her two bus tickets?

Answer: _____

4.

Here is part of a number line.

Write in the numbers missing from the **two** empty boxes.



Feeling more confident**

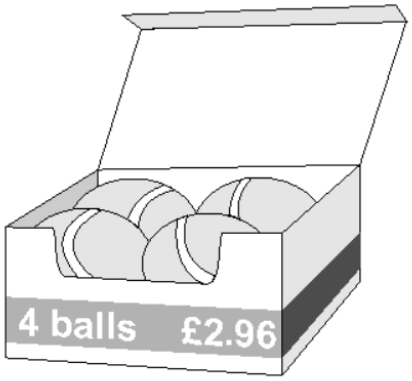
1.

The **original** price of this car is £8,999

What is the **sale** price of the car?

£

2.



A box of four balls costs **£2.96**

How much does each ball cost?

3.

Dean and Alex buy **3 boxes** of balls between them.

Dean pays **£4.50**

How much must Alex pay?

Show your method

£

4.

John buys one toy car and one pack of stickers.

£1.49

£1.64

He pays with a **£10** note.

How much change does John get?

Show your method

£

2 marks

Ready for a challenge***

1.

Amina posts three large letters.

The postage costs the same for each letter.

She pays with a £ 20 note.

Her change is £14.96

What is the cost of posting **one** letter?

Show your method

£

2.

3 pineapples cost the same as 2 mangoes.

One mango costs £1.35

How much does **one** pineapple cost?

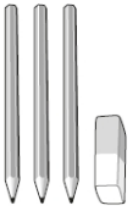
Show your method

£

3.

6 pencils cost **£1.68**

3 pencils and 1 rubber cost **£1.09**



What is the cost of **1 rubber**?

Show your method

4.

Miss Mills is making jam to sell at the school fair.

Strawberries cost £7.50 per kg.

Sugar costs 79p per kg.

10 glass jars cost £6.90

She uses 12 kg of strawberries and 10 kg of sugar to make 20 jars full of jam.

Calculate the total cost to make 20 jars full of jam.

Show your method

£

Warming up* answers

1.

Amounts written in correct order as shown:

£0.75	99p	£2.05	£9	£10.50

2 and 3.

80p **OR** £0.80

*Accept £0.80p **OR** 0.80 **OR** 80 **OR** £.80 **OR** £.80p **OR** £0 80 **OR** .80 **OR** 0 80*

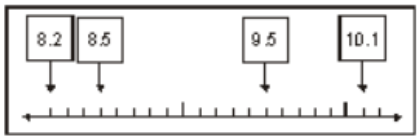
***Do not** accept £80p **OR** £80 **OR** £0.8 **OR** 0.80p*

£2.25 **OR** 225p

*Accept £2.25p **OR** 2.25 **OR** 225 **OR** £2 25*

***Do not** accept £225p **OR** £225*

4.



(a) Writes **8.2** in the left-hand box.

(b) Writes **10.1** in the righthand box.

Feeling more confident** answers

1.

£7,899

2.

74p **OR** £0.74

*Accept 74 **OR** 0.74 **OR** £0.74p **OR** 0 74 **OR** £.74 **OR** £.74p **OR** £0 74 **OR** .74*

***Do not** accept £74p **OR** £74 **OR** 0.74p*

3.

Award **TWO** marks for the correct answer of £4.38

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg

2.96 × 3 = 8.88

9.99 – 4.50

*Accept for **TWO** marks £4.38p **OR** £4 38*

*Accept for **ONE** mark £438 **OR** £438p as evidence of an appropriate method.*

Answer need not be obtained for the award of the mark.

Up to 2

4.

Award **TWO** marks for the correct answer of £6.87

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- £1.49 + £1.64 = £3.13
- £10 – £3.13 =

OR

- £10 – £1.49 = £8.51
- £8.51 – £1.64 =

OR

- £10 – 164p – 149p =

*Answer need not be obtained for the award of **ONE** mark.*

*Accept for **ONE** mark an answer of £687 **OR** £687p as evidence of an appropriate method.*

Ready for a challenge*** answers

1.

Award **TWO** marks for the correct answer of £1.68

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- 20 − 14.96 = 5.04
  5.04 ÷ 3

*Accept for **ONE** mark an answer of £168 OR £168p as evidence of an appropriate method.*

*Answer need not be obtained for the award of **ONE** mark.*

Up to 2m

2.

Award **TWO** marks for the correct answer of £0.90

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- £1.35 × 2 = £2.70
  £2.70 ÷ 3

*Accept for **ONE** mark an answer of £90p **OR** £0.9 as evidence of an appropriate method.*

*Answer need not be obtained for the award of **ONE** mark.*

Up to 2m

3.

Award **TWO** marks for the correct answer of 25p.

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- 168 ÷ 2 = 84
  109 – 84

4.

Award **THREE** marks for the correct answer of £111.70.

If the answer is incorrect, award **TWO** marks for:

- sight of £90 **AND** £7.90 **AND** £13.80 as all multiplication steps completed correctly.

*Accept for **TWO** marks, sight of 9,000p **AND** 790p **AND** 1,380p as all multiplication steps completed correctly.*