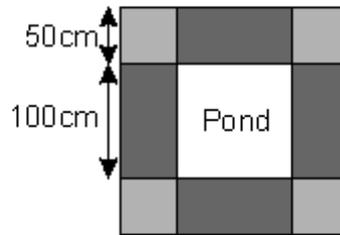# Spicy Reasoning Week 5 Year 5

Q1.   Mr Singh buys paving slabs to go around his pond.

PAVING SLABS

£1.95 each   Square slabs
50cm by 50cm

£3.50 each   Rectangular slabs
100cm by 50cm

50cm

100cm   Pond

He buys 4 rectangular slabs and 4 square slabs.

What is the total cost of the slabs he buys?

Show your **working**. You may get a mark

£

2 marks

Mr Singh says,

'It would cost more to use square slabs all the way round'.

Explain why he is correct.

....

....

....

1 mark

Q2. Two children take part in a sponsored silence.

Sponsored Silence

Keep quiet!
Make money
for the hospital.

Laura

'I kept quiet from 10:30 to 10:35 in the morning. I got £3.42 a minute.'

Carl

'I kept quiet for half an hour. I got 35p a minute.'

How much money did each child get?

Laura £

Carl £

2 marks

Q3.   Asim and Mike both buy **12** cans of lemonade.

pack of 4 cans
£1.20

Asim buys 3 packs of 4 cans.

pack of 6 cans
£1.70

Mike buys 2 packs of 6 cans.

Mike says to Asim,

'You paid 50p more than me'.

Is Mike correct?

Circle **Yes** or **No**.   Yes / No
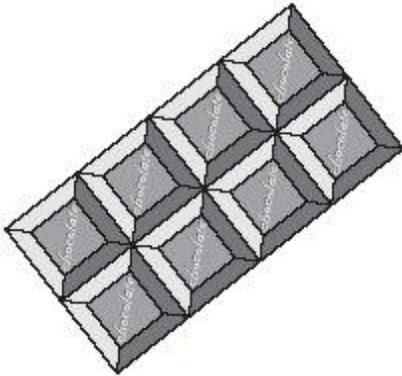
Explain how you know.

....

....

....

1 mark

Q4. Here is a chocolate bar.

William eats 3 pieces and Amber eats 2 pieces.

What **fraction** of the chocolate bar **remains**?
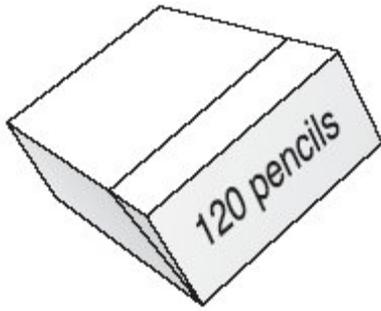
Q5. Parveen has the **same number** of 20p and 50p coins.

She has £7.00

How many of **each** coin has she?

Q6.   Miss Wood's class had 120 pencils at the start of the year.

120 pencils

12 children use 5 pencils each.

11 children use 4 pencils each.

How many pencils are left at the end of the year?

Show your **working**. You may get a mark

pencils

2 marks

<u>ANSWERS!</u>

M1. (a) Award **TWO** marks for the correct answer of £21.80

*Accept £21.80p **OR** £21 80*

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

3.50 × 4 = 14.00

1.95 × 4 = 7.80

14.00 + 7.80 = wrong answer

*Accept for **ONE** mark £2180p **OR** £2180 **OR** £21.8 as evidence of appropriate working.*

*Calculation must be performed for the award of **ONE** mark.*

Up to 2

(b) An explanation which recognises that each square slab costs more than half
a rectangular slab or equivalent, eg

• 'Half of £3.50 is £1.75, which is less than £1.95';

• 'Two square slabs cost more than one rectangular slab';

• 'Because 12 squares cost £23.40';

• 'Because it would cost £1.60 more'.

> ***Do not** accept vague or arbitrary explanations, eg*
>
> • *'Because he would need more slabs';*
>
> • *'Because square slabs are cheaper than rectangular slabs';*
>
> • *'Because it costs more';*
>
> • *'He is right because the square slabs are £1.95 each and the rectangular slabs are £3.50 each'.*

1

[3]

M2. (a)

Laura   **£17.10**

*Accept £17.10p **OR** £17 10 **OR** £17 10p **OR** 1710p written outside the box.*

***Do not** accept £1710 **OR** £1710p **OR** £17.1*

1

(b)

Carl | **£10.50** |

The above guidance on notation applies also to this mark.

1

[2]

M3.   An explanation that recognises that Asim paid 20p more than Mike, eg
- 'Asim paid £3.60 and Mike paid £3.40 so Asim paid 20p more';
- 'Asim paid only 20p more for 3 lots of 4 cans';
- £3.60 is 20p more than £3.40, not 50p';
- 'Mike paid 20p less than Asim'.

OR

An explanation that recognises that Asim paid £3.60 and Mike paid £3.40, eg
- 'Asim paid £3.60 and Mike paid £3.40';
- 'Because 50p more would mean that Asim spent £3.90 but he spent £3.60';
- '£3.60 is not 50p more than £3.40'.

> ***Award*** *the mark if either NO is circled **OR** if neither 'Yes' or 'No' is circled, provided a correct unambiguous explanation is given.*
>
> ***Do not*** *award the mark for circling 'No' alone.*
>
> ***Do not*** *accept an explanation which makes comparisons between incorrect amounts of money, eg*
> - *'Asim's only cost him £3.40 and Mike's cost him £3.80';*
> - *'Because 2 × £1.70 = £2.40 and 3 × £1.20 = £3.60 and £3.60 is 120p more than £2.40 not 50p more than £2.40'.*
>
> ***Do not*** *accept an explanation which makes comparisons between the price of one of each pack, eg*
> - *'Because 4 cans cost £1.20 and 6 cans cost £1.70 so take the cost of £1.20 – £1.70 = 50p'.*
>
> ***Do not*** *accept an explanation which is vague or ambiguous or merely restates the question, eg*
> - *'I know that Mike must be wrong because Mike's costs a lot more than 50p more';*
> - *'I know Mike paid 50p more'.*

U1

[1]

M4. $\dfrac{3}{8}$

Accept equivalent fractions or decimals, eg 0.375

[1]

M5. 10

[1]

M6. Award **TWO** marks for the correct answer of 16

If the answer is incorrect, award **ONE** mark for evidence of appropriate working which involves a complete and correct method, eg

12 × 5 = 60
11 × 4 = 44
60 + 44 = 104
120 – 104 = wrong answer

An answer must be given for the award of ONE mark.