GCSE Mathematics Unit 2 4352-01

All Candidates' performance across questions

Question Title	N	Mean	S D	Max Mark	F F	Attempt %
1	1678	7.6	1.4	9	84.8	100
2	1670	1.8	1.1	3	60.2	99.5
3	1677	1.8	0.4	2	92.5	99.9
4	1656	1.5	0.8	2	77.2	98.7
5	1675	2.2	0.8	3	73.3	99.8
6a	1599	1.9	1.2	3	64.2	95.3
6b, 6c	1659	2.8	1.1	4	70.1	98.9
6d	1660	1.5	0.8	2	73.2	98.9
7	1668	4.2	1.9	7	59.8	99.4
8	1569	1.5	1.4	3	51.5	93.5
9	1527	1.5	1.5	4	37.6	91
10	1640	3	1.2	4	76.1	97.7
11	1563	0.7	0.8	2	35.3	93.2
12	1593	2.1	1.9	6	35.1	94.9
13	1384	0.3	1	5	5.8	82.5
14	1143	0.1	0.3	2	3.8	68.1
15	1438	1.1	1.4	4	27.2	85.7
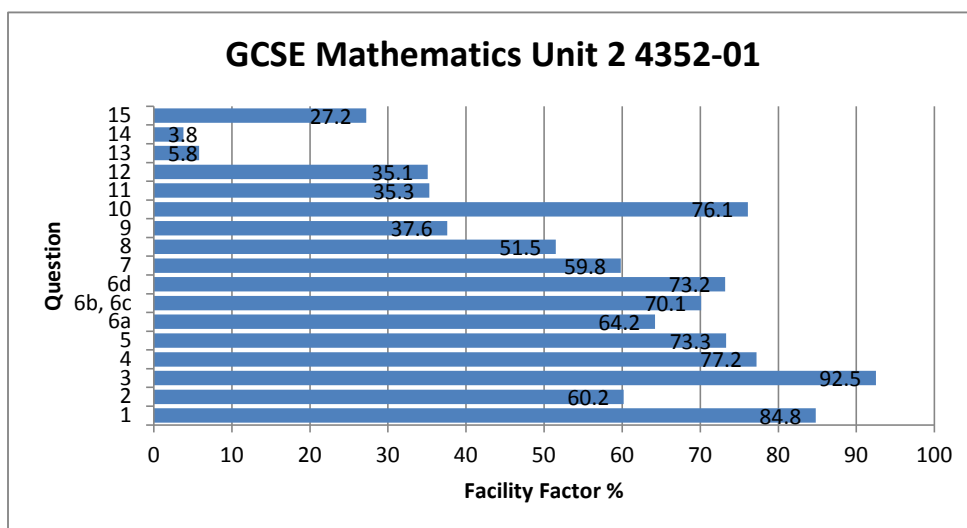
GCSE Mathematics Unit 2 4352-01

6. *(a)* In a maths test, Zac scored $\frac{3}{5}$ of the maximum possible mark.

Josh scored 62% and Lowri's mark was 0·58 of the maximum possible mark.

Write down which student scored the most marks and which student scored the least marks.
You must show all your working to support your answer. [3]

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Student with most marks = ...

Student with least marks = ...

(4352-01)

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Write down which student scored the most marks and which student scored the least marks.

You must show all your working to support your answer. [3]

Workings:

×20

$\frac{3}{5}$ $\frac{60}{100}$ 60% – ~~Josh~~ Zac.   Josh had the most. then Zac. then lowri.

62% – Josh

0.58 × 100

58% – Lowri

Student with most marks = Josh.

Student with least marks = Lowri.

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$0·58 - 58\%$.

Josh Scored -62%.

$\frac{3}{5} - 30\%$

Josh got the best

Student with most marks = Josh

Student with least marks = Zac

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$0 \cdot 58 - 58\%.$ Josh got

Josh Scored $-62\%.$ the best

$\frac{3}{5} - 30\%$

Student with most marks = Josh

Student with least marks = Zac

7. *You will be assessed on the quality of your written communication in this question.*

Mr and Mrs Morris and their children, Nia and Bryn, went to Addington Theme Park for a day out.

Mr and Mrs Morris planned to go on 6 rides each.

Nia and Bryn planned to go on 8 rides each.

	Adult price	Child price
One-day ticket (includes all rides)	£21.50	£17.50
Individual ride ticket (per person per ride)	£2.50	£2.50

Mr and Mrs Morris bought tickets for themselves and for their children.
They spent as little money as possible.
How much money did it cost them altogether?
You must show all your working clearly. [7]

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Mr and Mrs Morris bought tickets for themselves and for their children.
They spent as little money as possible.
How much money did it cost them altogether?
You must show all your working clearly. [7]

One day ticket

21.50 x 2   43
17.50 x 2   35
=£78.00

Individual ride ticket

2.50 x 12 =30.00
2.50 x 16 =40.00
=£70:00

Answer: Altogether
it cost them £70
and they paid for
individual ride tickets.

Mr and Mrs Morris bought tickets for themselves and for their children.
They spent as little money as possible.
How much money did it cost them altogether?
You must show all your working clearly.   [7]

One day ticket

21.50 × 2   43
17.50 × 2   35
= £78.00

Individual ride ticket   Answer: Altogether
2.50 × 12 = 30.00   it cost them £70
2.50 × 16 = 40.00   and they paid for
= £70:00   Individual ride tickets.

Mr and Mrs Morris bought tickets for themselves and for their children.
They spent as little money as possible.
How much money did it cost them altogether?
You must show all your working clearly.

[7]

If mr and mrs morris bought the one-day ticket for themselves
and two children. Adult price is £21.50. £21.50 x 2 = £43.00
for the adults. child price is £17.50. £17.50 x 2 = £35.00
for the children. So the family would of spent £43.00 + £35.00
equals £78.00 for the whole family. If the family
spent the money on individual ride tickets. Mr and mrs
morris ~~went~~ planned to go on 6 rides each. £2.50 x 6
equals £15.00 each therefore for both adults it would

cost £15.00 x 2 = £30.00. The children planned to go on
8 rides each. Each ride costs a child £2.50, £2.50 x 8 equals
£20.00 so for both Nia and Bryn it would cost £20.00
x 2 = £40.00. All together the family would have to spend £40.00
+ £30.00 = £70.00. Mr and mrs Morris spent as little
money as possible so that would mean they bought individual
ride tickets instead of a one-day ticket. A one-day ticket
for the whole family costs £78.00 whereas individual rides
for the whole family costs £70.00.

Mr and Mrs Morris bought tickets for themselves and for their children.
They spent as little money as possible.
How much money did it cost them altogether?
You must show all your working clearly.   [7]

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for the whole family costs £78.00 whereas individual rides
for the whole family costs £70.00.

Mr and Mrs Morris bought tickets for themselves and for their children.
They spent as little money as possible.
How much money did it cost them altogether?
You must show all your working clearly. [7]

8 ride tickets $8 \times 2.50 = £20.00$

one day ticket → $= £17.50$ So Mr and Mrs Morris

would choice all ticket for the children
                    day

6 ride tickets - $6 \times 2.50 = £15.00$

One day ticket - $= £21.50$ So Mr and Mrs

Morris would choice 6 ~~stage~~ ~~8~~ ride tickets for ~~AA~~ themselves.

Two people for 6 ride ticket $= 2 \times 15 = £30.00$
Two child all day tickets $= 2 \times 17.50 = £35.00$
                                              $£65.00$

$17.50 \times 2 = 35$

Cost all together $= £65.00$

Mr and Mrs Morris bought tickets for themselves and for their children.
They spent as little money as possible.
How much money did it cost them altogether?
You must show all your working clearly.

[7]

8 ride tickets 8 × 2.50 = £20.00

one day ticket→ = £17.50   So Mr and Mrs Morris
Would Choice all ticket for the Children
                    day

6 ride tickets - 6 × 2.50 = £15.00

One day ticket -   = £21.50   So Mr and Mrs
Morris would choice 6 ~~store~~ ~~exc~~ ride tickets for
~~AA~~ themselves.

Two people for 6 ride ticket = 2 × 15 = £30.00
Two Child all day tickets   = 2 × 17.50 = £35.00
                                      £65.00

17.50 × 2 = 35

Cost all together = £65.00

8. Karim painted a fence.

On Monday, he painted $\frac{7}{10}$ of the fence.

On Tuesday, he painted another $\frac{1}{5}$ of the fence.

On Wednesday, he finished painting the fence.

What fraction of the fence did Karim paint on Wednesday? [3]

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8. Karim painted a fence.

On Monday, he painted $\frac{7}{10}$ of the fence.

On Tuesday, he painted another $\frac{1}{5}$ of the fence.

On Wednesday, he finished painting the fence.

What fraction of the fence did Karim paint on Wednesday? [3]

$\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ monday
tuesday

$10/2 = 5$

$\frac{7}{10}$ ** $\frac{1}{5}×2 = \frac{2}{10}$ Karim painted $\frac{1}{10}$ on wednesday

8. Karim painted a fence.

On Monday, he painted $\frac{7}{10}$ of the fence.

On Tuesday, he painted another $\frac{1}{5}$ of the fence.

On Wednesday, he finished painting the fence.

What fraction of the fence did Karim paint on Wednesday? [3]

Monday
tuesday

$10/2 = 5$

$\frac{7}{10}$ + $\frac{1}{5}$ x2 = $\frac{2}{10}$

Karim painted $\frac{1}{10}$ on wednesday.

8. Karim painted a fence.

   On Monday, he painted $\frac{7}{10}$ of the fence.

   On Tuesday, he painted another $\frac{1}{5}$ of the fence.

   On Wednesday, he finished painting the fence.

   What fraction of the fence did Karim paint on Wednesday? [3]

   $\frac{7}{10} = 70\%$

   $70 + 20 = 90$

   $\frac{1}{5} = 20\%$

   wednesday he painted 10%

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$\frac{7}{10} = 70\%$

$\frac{1}{5} = 20\%$ $70 + 20 = 90$

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On Tuesday, he painted another $\frac{1}{5}$ of the fence.

On Wednesday, he finished painting the fence.

What fraction of the fence did Karim paint on Wednesday? [3]

Monday — $\frac{7}{10}$

Tuesday — $\frac{1}{5} = \frac{2}{10}$

Wednesday — $\frac{1}{10}$

$$\frac{7}{10} + \frac{2}{10} = \frac{9}{10} \qquad \frac{10}{10} - \frac{9}{10} = \frac{1}{10}$$

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On Wednesday, he finished painting the fence.

What fraction of the fence did Karim paint on Wednesday? [3]

Monday - $\frac{7}{10}$

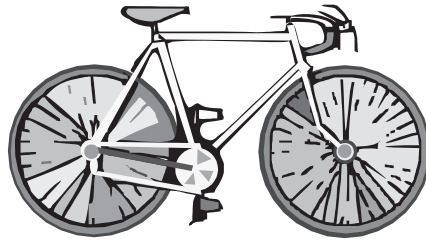Tuesday - $\frac{1}{5}$ = $\frac{2}{10}$

Wednesday - $\frac{1}{10}$

$\frac{7}{10} + \frac{2}{10} = \frac{9}{10}$ $\frac{10}{10} - \frac{9}{10} = \frac{1}{10}$

12. Daniel wants to buy a new bicycle. It is priced at £480.

Daniel can either
* pay £480 immediately, or
* pay a 15% deposit, followed by 24 monthly payments of £22.

(a) Calculate the total amount Daniel would pay using the deposit and monthly payments method. [3]
You must show all your working.

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(a) Calculate the total amount Daniel would pay using the deposit and monthly payments method.

You must show all your working. [3]

$15\% = 0.15$ $4 \overline{)480}$ $^{1}{}_{2}{}^{0}$ $6 \overline{)480}$ $^{8}{}^{0}$

480

$\times \ 0.15$

61.200

15% of $480 = £80$

$£22 \times 24 = £264$

$264 + 80 = £344$

22

(a) Calculate the total amount Daniel would pay using the deposit and monthly payments method. [3]
You must show all your working.

$15\% = 0.15$ $4\overline{)480}^{120}$ $6\overline{)480}^{80}$

480

$\times\ 0.15$

61.200

15% of $480 = £80$

$£22 \times 24 = £264$

$264 + 80 = £344$

2D

You must show all your working.

48.0

10% = 48   15% = £72   £22 × 24 = £528

5% = 24

72

% =

2 × =

	20	2
20	400	40
4	80	8

400
80
40
8
—
528

£ 528
+ £   72
———————
£ 600

Daniel would be paying a total of £600 if he would to pay by using the deposit & montly payments method.

(a) Calculate the total amount Daniel would pay using the deposit and monthly payments method.

method. [3]

You must show all your working.

480

15% £72

$10\% = 48$ $15\% = £72$ $£22 \times 24 = £528$

$5\% = 24$

72

%=

2x =

	20	2
20	400	40
4	80	8

400
80
40
8
528

£ 528
+ £ 72
£ 600

Daniel would be paying a total of £600 if he would to pay by using the deposit & montly payments method.

(a) Calculate the total amount Daniel would pay using the deposit and monthly payments method.

You must show all your working. **[3]**

10% of 480 = £48

5% of 480 = £24

£72 - Deposite

10 monthly payments = £22 × 10 = £220

£220 × 2 = £440 + (4 × 22) = £88

£440 + 88 = £528

+ £ 72

£600

he would pay £600

(a) Calculate the total amount Daniel would pay using the deposit and monthly payments method. [3]
You must show all your working.

10% of 480 = £48
5% of 480 = £24
            £72 - Deposite

10 monthly payments = £22 × 10 = £220
£220 × 2 = £440 + (4 × 22) = £88
£440 + 88 = £528
         + £ 72
           £600

he would pay £600

12. *(b)* Find the percentage increase in the cost of the bicycle when Daniel pays using the deposit and monthly payments method. [3]

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12.

(b) Find the percentage increase in the cost of the bicycle when Daniel pays using the deposit and monthly payments method.

[3]

$$\frac{480}{600} = 124\% \quad 1$$

600
480

$$\frac{1240}{80 \overline{\smash{)}600}}$$

12.

(b) Find the percentage increase in the cost of the bicycle when Daniel pays using the deposit and monthly payments method. [3]

$$\frac{480}{600} = 124\% \quad 1$$

$$\frac{12\ 40}{600}$$

$$80$$

12.

(b) Find the percentage increase in the cost of the bicycle when Daniel pays using the deposit and monthly payments method. [3]

Immediately = £480

Monthly & deposite = £600

Increased by £120

50% of 480 = 240

50% of 240 = 120

£120 is ¼ of 480   ¼) 25%

The Percentage increase is by 25%

12.

(b) Find the percentage increase in the cost of the bicycle when Daniel pays using the deposit and monthly payments method. [3]

Immediately = £480

Monthly & deposite = £600

Increased by £120

£120 is ½ of 480   ¼ | 25%

The Percentage increase is by 25%

50% of 480 = 240

50% of 240 = 120

12.

(b) Find the percentage increase in the cost of the bicycle when Daniel pays using the deposit
and monthly payments method.   [3]

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   ⁵6'00          48            96   25%
   480         + 48 20%       + 24
   ─────          ──             ──
   1 20            96           12 0
```

£120 difference

25% increase.

12.

(b) Find the percentage increase in the cost of the bicycle when Daniel pays using the deposit and monthly payments method. [3]

$$\begin{array}{r} ^5\!\!\!\not{6}'00 \\ 480 \\ \hline 120 \end{array}$$

$$\begin{array}{r} 48 \\ +48 \quad 20\% \\ \hline 96 \end{array}$$

$$\begin{array}{r} 96 \\ +24 \quad 25\% \\ \hline 120 \end{array}$$

£120 difference

25% increase.