Functional Skills

Mathematics Level 1

Sample Assessment

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Mathematics Level 1
Online Sample Assessment

The Sample Assessment for Level 1 Functional Skills Mathematics can be viewed on the XAMS platform by clicking here.

LEVEL 1 FUNCTIONAL SKILLS QUALIFICATION IN MATHEMATICS

SECTION A - QUESTION AND ANSWER PAPER

NON-CALCULATOR – 30 MINUTES

SAMPLE ASSESSMENT MATERIAL

Do not open this paper until you are told to do so by the invigilator.

Overall assessment marks available: **60**
Overall assessment time limit: **2 HOURS**

There are **TWO** Sections to this assessment:

- **Section A** includes Task 1. You **must not** use a calculator for this section.

  Total marks available: 15. Time limit: 30 minutes
- **Section B** includes Task 2, 3 and 4. You can use a non-scientific calculator for this section

  Total marks available: 45. Time limit: 1 hour and 30 minutes

For Section A you need:

- This question and answer paper
- A pen with black or blue ink
- A pencil
- A ruler

INTERNET ACCESS IS NOT PERMITTED AND YOU MUST NOT USE A CALCULATOR

The invigilator will stop the assessment after 30 minutes. You must hand in this question and answer paper at this point.

The invigilator will then hand out **Section B** and a non-scientific calculator. You will then have a further 1 hour and 30 minutes to complete **Section B**.

Instructions

1. Please sign and date below to confirm that your details are correct and that you have understood the instructions.
2. Read each task and question carefully.
3. Remember to show all your workings out clearly.
4. The number of marks available for each question is shown in brackets. Use these marks to guide you on how long to spend on each question.
5. Answer **all** questions using the space provided on this question and answer paper.
6. If you have time, check your work for **Section A** at the end. Once you have handed in this question and answer paper, you will not be able to check this again.
7. If you use extra paper, write your name, learner number and the question number you are answering on it and securely attach it to this question and answer paper.

Learner name:	Joe Bloggs
Learner number:	10000000
Centre number:	10000
Signature:	
Today's date:	

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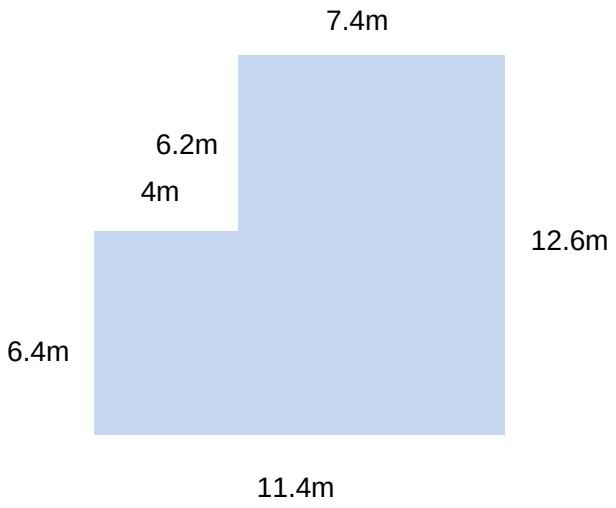
Section A

Task 1 (15 marks)

Question 1

Diagram not drawn to scale



Calculate the perimeter of the shape. (2 marks)

Show your calculations and/or workings out here:

Write your answer in this box.

Question 2

Calculate 17^2. (1 mark)

Show your calculations and/or workings out here:

Write your answer in this box

Question 3

There is a ratio of 6:1 red marbles to white marbles.

There are 42 red marbles in total. How many white marbles are there? (1 mark)

Show your calculations and/or workings out here:

Write your answer in this box.

Question 4

Calculate 14.73 + 18.49 (1 mark)

Show your calculations and/or workings out here:

Write your answer in this box.

Question 5

Calculate 46.8 ÷ 100 (1 mark)

Show your calculations and/or workings out here:

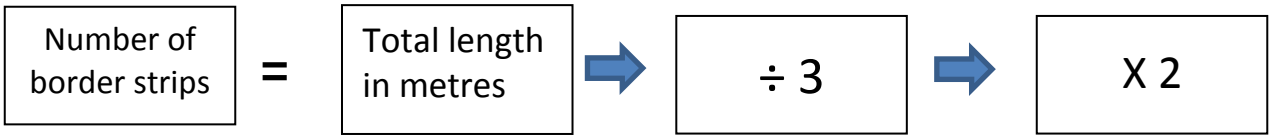
Write your answer in this box.

Question 6

a) Janice wants to put border strips around **three** sides of her square lawn. The length of one side of the lawn is 14 metres.

Border strip

To calculate the number of strips she needs, Janice follows this rule:



Each border strip costs £9.89.

Show an **estimate** of the cost of the required number of border strips. (4 marks)

Show your calculations and/or workings out here:

Write your answer in this box.

b) Janice wants to paint the fence panels in her garden. Each fence panel needs approximately 300 ml of paint. She buys 2 tins of paint. Each tin contains 1.5 litres of paint.

How many fence panels can she paint before she runs out? (2 marks)

Show your calculations and/or workings out here:

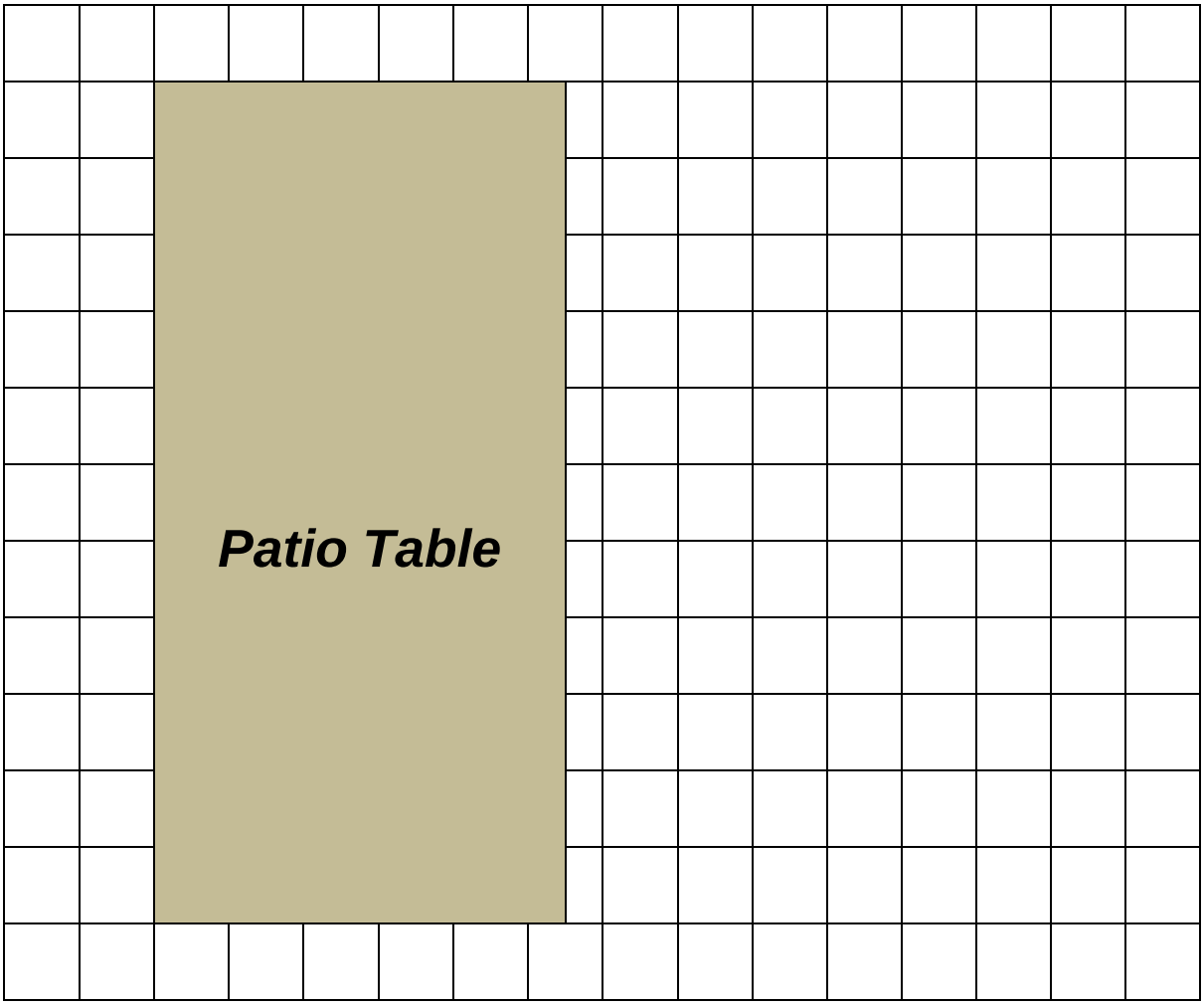
Write your answer in this box.

c) Janice wants to buy a table to put in her patio area. She draws a diagram of her patio to show the size of table she wants.

What are the actual measurements of the table Janice wants? (2 marks)

Scale

1 box = 20cm x 20 cm



Show your calculations and/or workings out here:

Write your answers in this box.

Question 7

Janice wants to buy new carpet for her bedroom. The bedroom is rectangular and has a floor area of $30m^2$.

Complete the table below to show the dimensions of her bedroom. (1 mark)

Bedroom	
Length	
Width	4m

Show your calculations and/or workings out here:

[End of Section A]

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LEVEL 1 FUNCTIONAL SKILLS QUALIFICATION IN MATHEMATICS

SECTION B - QUESTION AND ANSWER PAPER (RFSML1SAM01)

CALCULATOR – 1 HOUR AND 30 MINUTES

SAMPLE ASSESSMENT MATERIAL

Do not open this paper until you are told to do so by the invigilator.

Overall assessment marks available: **60**
Overall assessment time limit: **2 HOURS**

There are **TWO** Sections to this assessment:

- **Section A** – please ensure you have handed in Section A before beginning Section B
- **Section B** includes Task 2, 3 and 4. You can use a non-scientific calculator for this section.

  Total marks available: 45. Time limit: 1 hour and 30 minutes.

For Section B you need:

- This question and answer paper
- A pen with black or blue ink
- A pencil
- A ruler
- A non-scientific calculator

INTERNET ACCESS IS NOT PERMITTED

You now have a further 1 hour and 30 minutes to complete **Section B**.

Instructions

1. Please sign and date below to confirm that your details are correct and that you have understood the instructions.
2. Read each task and question carefully.
3. Remember to show all your workings out clearly.
4. The number of marks available for each question is shown in brackets. Use these marks to guide you on how long to spend on each question.
5. Answer **all** questions using the space provided on this question and answer paper.
6. If you have time, check your work for **Section B** at the end.
7. If you use extra paper, write your name, learner number and the question number you are answering on it, and securely attach it to this question and answer paper.
8. At the end of this section (**Section B**), hand in this question and answer paper and all notes to the invigilator.

Learner name:	Joe Bloggs
Learner number:	10000000
Centre number:	10000
Signature:	
Today's date:	

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Section B

Task 2 (15 marks)

Question 8

A bag contains 6 red balls, 6 yellow balls and 6 blue balls. Express as a fraction the probability of picking out a blue ball. (1 mark)

Show your calculations and/or workings out here:

Write your answer in this box.

Question 9

Convert $\frac{5}{8}$ to a percentage. (1 mark)

Show your calculations and/or workings out here:

Write your answer in this box.

Question 10

Calculate 2.5 ÷ 0.375.

Give your answer to two decimal places. (1 mark)

Show your calculations and/or workings out here:

Write your answer in this box.

Question 11

a) Jared owns a bakery. He receives an order for party cakes to serve 72 people. He has this list of ingredients:

Party Cake Ingredients
(Serves 12 people)
400g flour
400g butter
375g sugar
6 eggs

Jared has 2 ¾ kg of flour.

How much flour will Jared have left over if he bakes enough cakes for everyone at the party? Give the units in your answer. (4 marks)

Show your calculations and/or workings out here:

Write your answer in this box.

b) Jared wants to bake 6 loaves of bread. A loaf of bread takes 7 minutes to prepare. Jared will bake all the loaves at the same time. The loaves will take 45 minutes to bake. He allows 10 minutes for them to cool down.

What is the latest time that Jared should start preparing his first loaf of bread so that all the loaves are cooled by 6.15am?

(3 marks)

Show your calculations and/or workings out here:

Write your answer in this box.

c) Jared needs to buy decorations for a celebration cake. He sees this price list at his local trade store.

Item	Price
Candles	13p each
Icing	£1.40 per packet
Sugar Alphabet Letters	56p each
20% discount if you use your trade card	

Jared will use his trade card to buy the decorations. He buys 20 candles, 2 packs of icing and 15 letters to make the word CONGRATULATIONS.

How much money will Jared spend on the decorations using his trade card?

(4 marks)

Show your calculations and/or workings out here:

Write your answer in this box.

d) Use approximation to check the amount of the trade discount. (1 mark)

Show your calculations and/or workings out here:

Write your answer in this box.

Task 3 (15 marks)

Question 12

Write ‘One hundred and ninety thousand, four hundred and ninety three’ in numbers.

(1 mark)

Write your answer in this box.

Question 13

The table below shows interest rates from 5 different banks.

Bank A	Bank B	Bank C	Bank D	Bank E
4.72%	4.07%	4.726%	4.672%	4.76%

Which bank offers the highest interest rate? (1 mark)

Write your answer in this box.

Question 14

The table below shows the scores of 16 students in an exam.

42	33	28	19	35	41	36
38	31	29	27	44	40	28
39	14					

Complete the table below to show frequency. (1 mark)

Number of marks	**Frequency**
0 – 9	
10 – 19	
20 – 29	
30 – 39	
40 – 49	

Question 15

a) Ryan is a member of a five a side football team.

The table below shows the goal difference for Ryan's team over the last 4 football matches.

Goal difference is the number of 'goals for' minus the number of 'goals against'.

Complete the table below to show the missing values. (3 marks)

Match	Goals For	Goals Against	Goal Difference
Match 1	2		-1
Match 2		3	0
Match 3	1		-3
Match 4	1	3	
Totals			

b) Ryan's team are playing a match on Saturday. The table below shows the predicted chance of rainfall on a scale of 0 to 1 from Monday to Saturday.

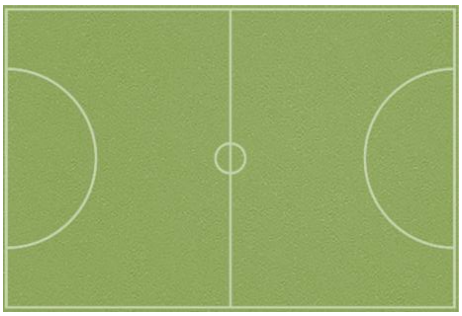
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Predicted chance of rainfall	0.40	0.50	0.35	0	0.92	0.88

Ryan thinks it is unlikely to rain on Saturday.

Is Ryan correct? Explain why you think this. (1 mark)

Write your answer in this box.

c) The players in Ryan's team warm up before the charity match by running at least 1km around the edge of the pitch. How many full laps of the pitch will they need to run?
(3 marks)



18m

36m

Show your calculations and/or workings out here:

Write your answer in this box.

d) Ryan's team sold 380 tickets for the charity football match.

35% of the tickets sold were for children and 20% of the tickets were sold for senior citizens. The rest of the tickets were sold at full price for adults.

Ryan thinks that 176 tickets were sold at full price for adults.

Is Ryan correct? (3 marks)

Show your calculations and/or workings out here:

Write your answer in this box.

e) Ryan has collected £3697.40 from the 380 ticket sales. The football club will donate £2.94 from each ticket to charity.

How much money will be left after the donation? (2 marks)

Show your calculations and/or workings out here:

Write your answer in this box.

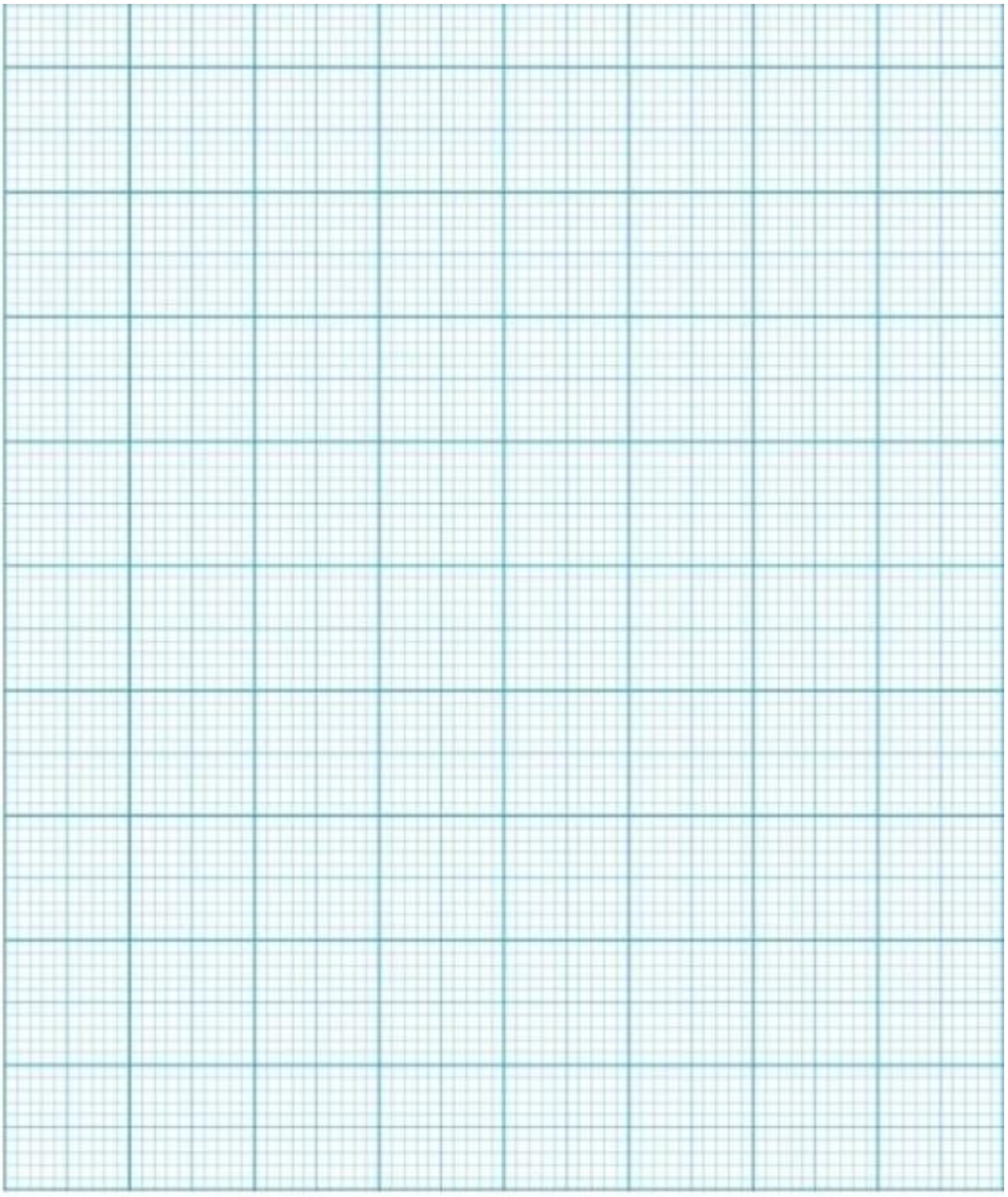
Task 4 (15 marks)

Question 16

The table below shows sales of laptops over a 6-month period.

Sales of laptops						
Months	Jan	Feb	Mar	Apr	May	June
Number of laptops sold	28	144	82	126	94	172

Draw a bar chart to show the sales of laptops over the 6-month period. (3 marks)

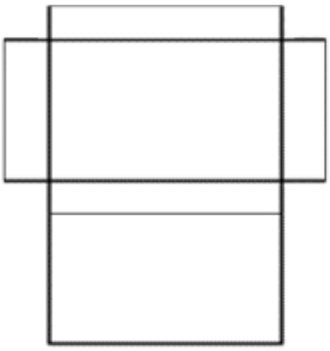


Question 17

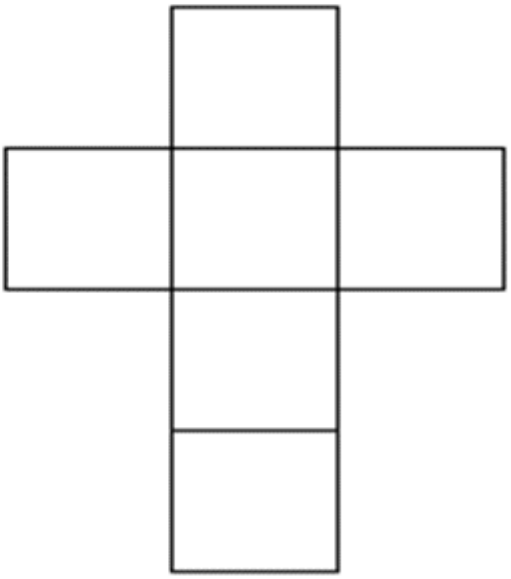
a) Davinder makes jewellery that she sells to local markets. She wants to buy some small boxes with lids, like the picture below, to put necklaces in.

She receives a selection of boxes to choose from. The net diagram of each box is shown below.

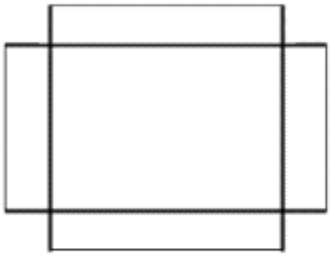
Net A
(7cm x 5cm x 1.5cm)



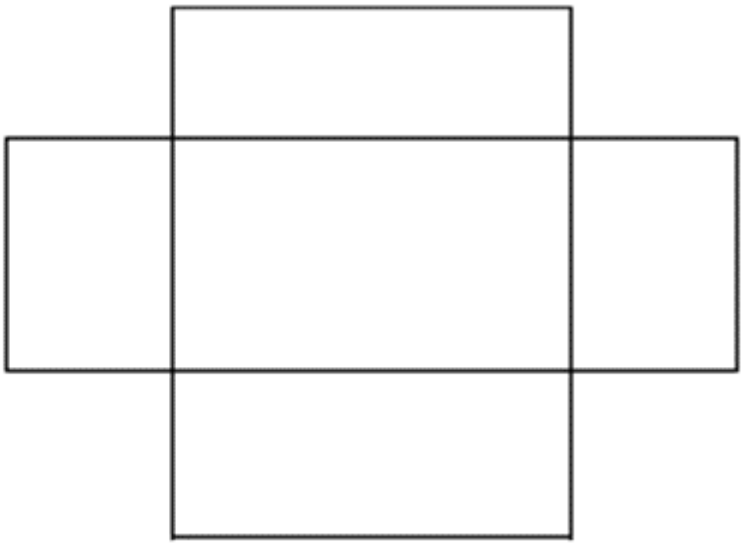
Net B
(4cm x 4cm x 4cm)



Net C
(7cm x 5cm x3cm)



Net D
(*10cm x 8cm x 3cm*)



Which net diagram best represents the box shown in the picture? Explain the reason for your choice of net in the box below. (2 marks)

b) Davinder has received an order for 100 **bracelets**.

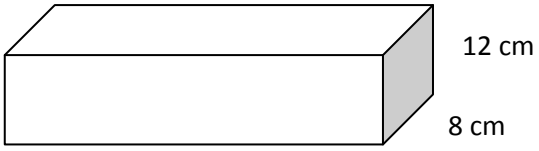
She packages each bracelet into a box 10cm by 8cm by 3cm.

Davinder will put the 100 boxes of bracelets into larger boxes for postage and delivery.

She has a choice of Box A or Box B, with measurements as shown below. She will only use one size of box.

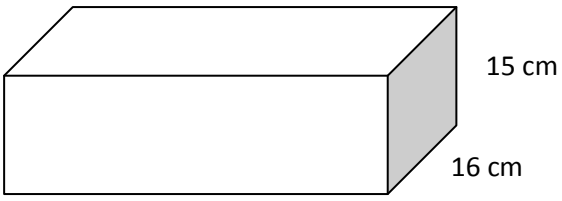
Box A costs £0.70 each and Box B costs £1.80 each. She wants to spend as little as possible.

Box A



50 cm

Box B



50 cm

Should Davinder choose Box A or Box B? (4 marks)

Show your calculations and/or workings out in the box at the top of the next page.

Show your calculations and/or workings out here:

Question 18

a) Davinder wants to know what her best-selling item of jewellery is and which jewellery item sold the most consistently over the 6-month period from July to December.

She has this information:

Jewellery item	Mean of items sold per month	Range of items sold per month
Bracelets		
Necklaces	47	84
Rings	35	62
Earrings	39	71

The table below shows the sales of bracelets over the 6-month period:

Months	Jul	Aug	Sept	Oct	Nov	Dec
Number of Bracelets Sold	23	22	38	28	44	97

Which is the best-selling jewellery item over the 6-month period? (2 marks)

Show your calculations and/or workings out here:

Write your answer in this box.

b) Which jewellery item sold the most consistently over the 6-month period?

(2 marks)

Show your calculations and/or workings out here:

Write your answer in this box.

c) Davinder makes a profit of £1592 from jewellery sales. She wants to use a third of the profit to buy more stock and pay the remainder into a savings account.

How much money will Davinder pay into the savings account? (2 marks)

Show your calculations and/or workings out here:

Write your answer in this box.

[End of assessment]

LEVEL 1 FUNCTIONAL SKILLS QUALIFICATION IN MATHEMATICS

MARK SCHEME

Sample Assessment

Paper: RFSML1SAM01

Functional Skills in Mathematics Level 1 – Mark scheme

Paper: RFSML1SAM01

Task 1 NC	Process (Task description)	Total mark	Mark allocation	Comments	PS or US	Subject content
Question 1	Calculate perimeter of shape	2	**1 mark**: Any valid method used to calculate perimeter, eg 7.4 + 12.6 + 11.4 + 6.2 + 4 + 6.4 OR (11.4 + 12.6) × 2	Units not required. Accept any other valid method. Accept if 48 seen.	US	22b
			1 mark: Correct perimeter shown ie 48m	Units not required.	US	22b
Question 2	Calculate square of 17	1	**1 mark**: (17 x 17) = 289		US	6
Question 3	Calculate number of marbles	1	**1 mark**: Correct number of white marbles: 7		US	17a
Question 4	Correct addition of numbers	1	**1 mark**: Correct answer 33.22		US	11a
Question 5	Correct division by 100	1	**1 mark**: Correct answer 0.468		US	3b

Question 6a	Calculate 3 sides of the garden area Correct method to find number of strips Correct number of border strips needed Cost found using estimate of numbers	4	**1 mark**: Correctly calculated 3 sides of the garden area (3 sides) = 42 (m)	Accept 42 seen.	PS	5
			1 mark: Correct method used following rule ie, 42 ÷ 3 × 2	FT from their calculation of 3 sides.	PS	5
			1 mark: Correct answer 28		PS	5
			1 mark: Valid method used to estimate, eg (10 × 30) = 300) OR (10 × 28) (= 280)	Allow FT for their number of border strips. Correct money notation not required. Do not award if 9.89 not rounded.	PS	12a
Question 6b	Conversion from ml to l or l to ml Calculate number fence panels	2	**1 mark**: Conversion from l to ml or ml to l, eg 1.5 × 1000 = 1500 OR 3 × 1000 = 3000 OR 300 ÷ 1000 = 0.3	Units not required. Award mark if 10 seen as their answer.	PS	20c
			1 mark: Correct number of fence panels, ie 10 panels		PS	20c
Question 6c	Valid method to calculate length or width Correct actual length and width shown	2	**1 mark**: Valid method to find appropriate length or width of table, eg 5.5 x 20 = (110 cm) OR 11 x 20 = (220 cm)	Units not required. May be implied if 110 or 220 seen.	PS	21
			1 mark: Correct length AND width of table shown, ie 110 (cm) and 220 (cm)	Both dimensions required for the mark. Units not required. Accept correct conversion to metres.	PS	21
Question 7	Identify missing dimension of the bedroom.	1	**1 mark**: 7.5 (m) identified 30 ÷ 4 = 7.5	Units not required. Award for correct answer seen.	PS	22a

Task 2	Process (Task description)	Total mark	Mark allocation	Comments	PS or US	Subject content (SoS)
Question 8	Express probability as a fraction	1	**1 mark**: 1/3 or one third shown	Accept 6/18	US	31
Question 9	Calculate percentage from fraction	1	**1 mark:** 62.5 (%)		US	16b
Question 10	Round to two decimals	1	**1 mark**: 6.67	Do not accept 6.66.	US	12b
Question 11a	Calculate amount of flour needed to make cakes.	4	**1 mark**: Valid method used to find amount of flour needed, eg 72 ÷ 12 (= 6) AND 6 × 400 OR 400 ÷ 12 (= 33.33) AND 33.33 × 72 OR 2399.99 or 2400 seen	May be implied if 350 or 0.350 seen for amount of flour left over.	PS	17b
	Convert fraction to decimal		**1 mark**: Conversion of ¾ kg to decimal, g or kg, eg 2.75kg OR 0.75kg OR 2750g OR 750g.	May be implied if 350 or 0.350 seen for amount of flour left over.	PS	16a
	Calculate amount of flour left over		**1 mark**: Correct amount of flour left over (based on rounded number of cakes), eg 2750 – 2400 = 350(g) OR 0.35 (kg).	Do not award for 150g or 0.15 kg. Allow FT for their amount of flour.	PS	20b
	Show correct units		**1 mark**: Correct units shown (g or kg) for their answer.	Allow FT for incorrect calculations. Do not allow 350kg or 0.35g.	PS	20b
Question 11b	Calculate time taken to prepare and bake loaves of bread	3	**1 mark**: Valid method used for adding up time taken, eg (6 × 7) + 45m + 10m (= 97m).	May be implied if 97 seen.	PS	20e
	Show amount of time taken		**1 mark**: Correct time of 97 (minutes).	Units not required.	PS	20e
	Show time to start making loaves		**1 mark**: Correct time given to start making loaves of bread, eg 4.38 (am)	Allow FT from their calculated time.	PS	20e

Question 11c	Conversion from pence to pounds	4	**1 mark**: Evidence of conversion from pence to pounds or vice versa, eg 0.13 OR 0.56 OR 140 OR 2.60 OR 8.40 OR 13.80	Award if 13.8 seen.	PS	20d
	Method for calculating percentage		**1 mark:** Method to calculate percentage discount, 20 ÷ 100 x 13.80 OR 0.2 x 13.80 OR Other valid method	Award if 2.76 seen and FT	PS	19
	Calculate percentage discount		**1 mark**: Correct 20% discount, ie 2.76	Correct money notation not required.	PS	19
	Calculated discounted price		**1 mark**: Correctly calculated price after discount, ie 11.04	Correct money notation not required.	PS	19
Question 11d	Approximation of the trade discount	1	**1 mark**: Valid method to check the trade discount, eg 20 ÷ 100 x 14 OR 0.2 x 14	Accept any valid method to approximate answer.	PS	12a

<table>
<tr><th>Task 3</th><th>Process
(Task description)</th><th>Total mark</th><th>Mark allocation</th><th>Comments</th><th>PS or US</th><th>Subject content</th></tr>
<tr><td>Question 12</td><td>Write number in digits</td><td>1</td><td>1 mark: Correctly writing the number in digits, ie
190493</td><td>Award if comma or space between 1000s and 100s.</td><td>US</td><td>1a</td></tr>
<tr><td>Question 13</td><td>Identify highest number</td><td>1</td><td>1 mark: Bank E (4.76) identified.</td><td>Award for correct bank or interest rate identified.</td><td>US</td><td>10</td></tr>
<tr><td>Question 14</td><td>Complete frequency table</td><td>1</td><td>1 mark:
<table><tr><th>Number of marks</th><th>Frequency</th></tr><tr><td>0 – 9</td><td>0</td></tr><tr><td>10 – 19</td><td>2</td></tr><tr><td>20 – 29</td><td>4</td></tr><tr><td>30 – 39</td><td>6</td></tr><tr><td>40 – 49</td><td>4</td></tr></table></td><td>Allow tally or totals.</td><td>US</td><td>28a</td></tr>
<tr><td rowspan="2">Question 15a</td><td>Correct stat shown for matches</td><td rowspan="2">3</td><td>2 marks: Correct values shown for all matches, ie
Match 1: 3
Match 2: 3
Match 3: 4
Match 4: -2</td><td>Award 1 mark for any 2 correct values shown.</td><td>PS</td><td>2</td></tr>
<tr><td>Correct totals</td><td>1 mark: Correct values shown for totals row, ie
Totals: 7, 13, -6</td><td></td><td>PS</td><td>2</td></tr>
<tr><td>Question 15b</td><td>Explain probability</td><td>1</td><td>1 mark: Correct answer with explanation, eg
No, because there is 0.88 chance of rainfall, which means there is a high chance that it will rain on Saturday OR
Other valid explanation</td><td>Do not accept ‘no’ without explanation.</td><td>PS</td><td>30</td></tr>
<tr><td rowspan="3">Question 15c</td><td>Valid method to find perimeter of pitch</td><td rowspan="3">3</td><td>1 mark: Valid method to find perimeter of pitch, eg
18 + 18 + 36 + 36 = OR
(18 × 2) + (36 × 2) = OR
Any other correct method</td><td></td><td>PS</td><td>22b</td></tr>
<tr><td>Conversion from m to km or km to m</td><td>1 mark: Evidence of conversion from m to km or vice versa. Eg
0.108 OR
1000m</td><td>Units not required</td><td>PS</td><td>20a</td></tr>
<tr><td>Correct number of laps</td><td>1 mark: Correct number of full laps around the pitch, ie
10</td><td>Do not accept 9 laps/times around the pitch</td><td>PS</td><td>12a</td></tr>
</table>

Question 15d	Calculate percentage	3	**1 mark:** correct method to calculate percentage**,** eg 35 ÷ 100 x 380 OR 0.55 x 380 OR 20 ÷ 100 x 380 OR 0.2 x 380 OR 0.45 x 380 OR 45 ÷ 100 x 380 OR Other valid percentage calculation	May be implied if 209, 133 or 76 seen. Award if 171 seen.	PS	14
			1 mark: correct number of adult tickets, eg 171 adult tickets sold		PS	14
			1 mark: correct answer, eg 'No, Ryan was not correct'	Only award if valid calculation AND/OR 171 seen	PS	14
Question 15e	Subtract decimals from decimals Calculate answer	2	**1 mark:** correct subtraction method, eg (2.94 x 380 =) 1117.2 AND 3697.40 – 1117.2	Award if 2580.20 seen. FT for incorrect total donation.	PS	11b
			1 mark: correct answer, eg £2580.20	£ sign not required.	PS	11b

Task 4	Process (Task description)	Total mark	Mark allocation	Comments	PS or US	Subject content
Question 16	Appropriate scale given. Bars at correct heights Graph appropriately labelled	3	**1 mark**: appropriate scale given	Do not award for line graph.	US	27b
			1 mark: bars at correct height (tolerance plus/minus 1 division)		US	27b
			1 mark: Graph contains appropriate axis labels and title, eg X axis: Months Y axis: Laptops Title: Graph to show number of laptops sold over 6 months	Accept similar wording for axis labels and title.	US	27b
Question 17a	Identify correct net Justify answer	2	**1 mark**: Net A.	Do not award without supporting valid explanation.	PS	25b
			1 mark: Any valid reason, eg "Net B is the shape of a cube so does not match the picture." OR "The other two boxes are too high compared to the picture." OR "The height of the box in the picture is very small which matches the dimensions of Net A." OR "Net C does not have a lid" OR "Net D dimensions are too large"	Accept any valid reason given for choosing their net.	PS	25b
Question 17b	Calculate number of small boxes that will fit in large box	4	**1 mark**: Valid method used to calculate number of small boxes that will fit in **either** large box, eg **Box A method** 50 ÷ 10 = 5 8 ÷ 8 = 1 12 ÷ 3 = 4 AND 5 × 1 × 4 (= 20) OR **Box B method** 50 ÷ 10 = 5 16 ÷ 8 = 2 15 ÷ 3 = 5 AND 5 × 5 × 2 (= 50) OR **Box A (volume method)** 10 × 8 × 3 = 240 50 × 8 × 12 = 4800 4800 ÷ 240 (= 20) OR **Box B (volume method)** 50 × 15 × 16 = 12000		PS	23

	Identify correct number of small boxes that will fit in large box Calculate number of large boxes needed for 100 bracelets Calculate cost of buying enough large boxes		12000 ÷ 240 (= 50)			
			1 mark: Correct answer given for **either** box. Box A: 20 OR Box B: 50		PS	23
			1 mark: Correct number found for **both** boxes, eg Box A: 100 ÷ 20 = 5 Box B: 100 ÷ 50 = 2	Allow FT for their number of small boxes per large box providing answer is feasible.	PS	23
			1 mark: Correct calculation and answer given for cost of each box, eg Box A: 5 × £0.70 = £3.50 Box B: 2 × £1.80 = £3.60	Allow FT for their number of boxes calculated.	PS	23
Question 18a	Calculate mean of bracelets sold, or totals of necklaces, rings and earrings	2	**1 mark**: Correct mean number of bracelets sold, eg 22 + 28 + 23 + 38 + 44 + 97 = 252 AND 252 ÷ 6 = 42 OR Correct total of either necklaces, rings and earrings sold, eg 47 × 6 = 282 necklaces OR 35 × 6 = 210 rings OR 39 × 6 = 234 earrings	Award if 42 seen Award if 282 or 210 or 234 seen	PS	29a
	Identify bestselling item		**1 mark**: Necklace identified as bestselling item.	Do **not** allow FT for incorrect calculations. Do not award if not supported by calculations	PS	29a
Question 18b	Calculate range of bracelets sold	2	**1 mark**: Correct range calculated, eg 97 – 22 = 75 identified (maximum and minimum identified).		PS	29b
	Identify most consistent item		**1 mark**: Rings identified as most consistent selling item.	Do not allow FT for incorrect calculations.	PS	29b
Question 18c	Calculate fraction of amounts	2	**1 mark:** Method to calculate fraction of amounts eg 1592 ÷ 3 x 2 = (1,061.33…) OR 1 ÷ 3 x 1592 = (530.66…)		PS	9
			1 mark: Correct answer = (£)1061.33	Allow 1061.34 Only allow 2 decimal places.	PS	9

Annotation notes:

Annotation	Meaning
US	Underpinning skills
PS	Problem solving skills
FT	Follow through
(…)	Information that is not required for the mark point

Functional Skills in Mathematics Level 1 – Mapping matrix

Paper number (Sample Assessment Material)	**RFSML1SAM01**									
Task number	**T1**		**T2**		**T3**		**T4**		**Total**	**%**
Total number of marks per task	**15**		**15**		**15**		**15**			
Problem Solving (PS) maximum marks **Underpinning skills (US) maximum marks**	**9** **6**		**12** **3**		**12** **3**		**12** **3**		**Total no of sub-elements mapped = 33**	
Tick the boxes to confirm that T2, T3 and T4 contain a 4 – 7 mark question reflecting no more than a one-step process or no more than one connected-step process.			✓		✓		✓			
Level 1 Subject Content	**PS**	**US**	**PS**	**US**	**PS**	**US**	**PS**	**US**		
1a. Read and write large numbers (up to one million)						1(Q12)			1	
1b. Order and compare large numbers (up to one million)										
2. Use both positive and negative numbers					3(Q15a)				3	
3a. Multiply whole numbers and decimals by 10, 100, 1000										
3b. Divide whole numbers and decimals by 10, 100, 1000		1(Q5)							1	
4. Use multiplication facts and make connections with division facts										
5. Use simple formulae expressed in words for one or two-step operations	3(Q6a)								3	
6. Calculate the squares of one-digit and two-digit numbers		1(Q2)							1	
7. Follow the order of precedence of operators										
8a. Read and write common fractions and mixed numbers										
8b. Order and compare common fractions and mixed numbers										
9. Find fractions of whole number quantities or measurements							2(Q18c)		2	
10. Read. Write, order and compare decimals up to three decimal places						1(Q13)			1	
11a. Add decimals with decimals up to two decimal places		1(Q4)							1	
11b. Subtract decimals with decimals up to two decimal places					2(Q15e)				2	
11c. Multiply decimals with decimals up to two decimal places										
11d. Divide decimals with decimals up to two decimal places										
12a. Approximate by rounding to a whole number	1(Q6a)		1(Q11d)		1(15c)				3	
12b. Approximate by rounding to one or two decimal				1(Q10)					1	

places										
13a. Read and write percentages in whole numbers										
13b. Order and compare percentages in whole numbers										
14. Calculate percentages of quantities, including simple percentage increases and decreases by 5% and multiples thereof					3(Q15d)				3	
15. Estimate answers to calculations using fractions and decimals										
16a. Recognise equivalences between common fractions, percentages and decimals			1(Q11a)						1	
16b. Calculate equivalences between common fractions, percentages and decimals				1(Q9)					1	
17a. Work with simple ratio		1(Q3)							1	
17b. Work with direct proportions			1(Q11a)						1	
Total: Number and number system									**26**	
18. Calculate simple interest in multiples of 5% on amounts of money										
19. Calculate discounts in multiples of 5% on amounts of money			3(Q11c)						3	
20a. Convert between units of length in the same system					1(Q15c)				1	
20b. Convert between units of weight in the same system			2(Q11a)						2	
20c. Convert between units of capacity in the same system	2(Q6b)								2	
20d. Convert between units of money in the same system			1(Q11c)						1	
20e. Convert between units of time in the same system			3(Q11b)						3	
21. Recognise and make use of simple scales on maps and drawings	2(Q6c)								2	
22a. Calculate the area of simple shapes including those that are made up of a combination of rectangles	1(Q7)								1	
22b. Calculate the perimeter of simple shapes including those that are made up of a combination of rectangles		2(Q1)			1(Q15c)				3	
23. Calculate the volumes of cubes and cuboids							4(Q17b)		4	
24a. Draw 2-D shapes and demonstrate an understanding of line symmetry										
24b. Understand the relative size of angles										
25a. Interpret plans and elevations of simple 3-D shapes										
25b. Interpret nets of simple 3-D shapes							2(Q17a)		2	
26a. Use angles when describing position and direction										
26b. Measure angles in degrees										
Total: Measure, shape and space									**24**	
27a. Represent discrete data in tables and diagrams										
27b. Represent discrete data in charts i) pie charts, ii) bar charts and iii) line graphs								3(Q16)	3	

28a. Group discrete data						1(Q14)			1	
28b. Represent grouped data graphically										
29a. Find the mean of a set of quantities							2(Q18a)		2	
29b. Find the range of a set of quantities							2(Q18b)		2	
30. Understand probability on a scale from 0 (impossible) to 1 (certain) and use probabilities to compare the likelihood of events					1(Q15b)				1	
31. Use equally likely outcomes to find the probabilities of simple events and express them as fractions				1(Q8)					1	
Total: Handling data									**10**	
Total Mark PS/US Total %	9	6	12	3	12	3	12	3	60	100

Problem solving and decision-making requirements. Indicate the question numbers where this is required	**Task 1**		**Task 2**		**Task 3**		**Task 4**		
Read, understand, and use mathematical information and mathematical terms	6a, 6b 6c		11a, 11b, 11c, 11d		15a, 15b, 15c, 15d		17a, 17b, 18a, 18b, 18c		
Address individual problems based on a combination of the knowledge and/or skills from the mathematical content areas (number and the number system; measures, shape and space; information and data). Some problems draw upon a combination of any two of the mathematical content areas and require learners to make connections between those content areas.	6a, 7		11a, 11b, 11c, 11d		15c		17b		
Use mathematical information and terms in a problem	6a, 6b, 6c		11a, 11b, 11c, 11d		15a, 15b, 15c, 15d		17b, 18a, 18b		
Use knowledge and understanding to a required level of accuracy	6a, 6b, 6c, 7		11a, 11b, 11c, 11d		15a, 15b, 15c, 15d		17b, 18a, 18b		
Identify suitable operations and calculations to generate results	6a, 6b, 6c, 7		11a, 11b, 11c, 11d		15c, 15d		17a, 17b, 18a, 18b		
Analyse and interpret answers in the context of the original problem					15b, 15c, 15d		17a, 17b, 18a, 18b		
Check the sense and reasonableness of answers	6b		11d		15c, 15d		17a, 17b		
Present results with appropriate explanation and interpretation demonstrating simple reasoning to support the process and show consistency with the evidence presented.							17b, 18b, 18c		