## NCFE Level 1 Functional Skills Qualification in Mathematics (603/5055/6)

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Paper number: P001254
Section B: Calculator Test
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Assessment window:
Time allowed:

Monday 9 December 2019 - Friday 13 December 2019
1 hour 30 minutes

## Learner instructions

- Answer all questions.
- Read each question carefully.
- Write your answers in the spaces provided.
- Show your working, as marks may be awarded for working.
- State units in your answers, where appropriate.
- Check your work.


## Learner information

- Section B contains Activities 2, 3 and 4.
- The maximum mark for this section is 45.
- The marks available for each question are shown in brackets.


## Resources

You will need a:

- pen, with black or blue ink
- pencil and eraser
- 30 cm ruler
- protractor
- calculator.

If extra pages are used, please make sure your name and centre name are on them and they are securely fastened to this booklet.

Please complete the details below clearly and in BLOCK CAPITALS.

Learner name
Centre name
Learner number $\square$ Centre number $\square$
Do not turn over until the invigilator tells you to do so.

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## Activity 2: Healthy-eating café

2 (a) John is opening a healthy-eating café.
He looks for a property with a seating area for 20 customers.
This is a scale plan of the seating area in one property he finds.
The drawing has a scale of 1 centimetre (cm):150 cm


The recommended maximum number of customers in a café is the seating area $\left(\mathrm{m}^{2}\right)$ divided by 1.5

Is this property suitable for 20 customers?
Show how you decide.


2 (b) Another property has a kitchen that has an area of 7 metres squared.
What is $7^{2} ?$


2 (c) John wants his menu to offer healthy food.
He reads that six hundred and seventeen thousand people went to hospital last year with illnesses caused by a poor diet.

What is six hundred and seventeen thousand in numbers?


2 (d) John buys food in preparation for his opening day.

| Ingredients | Price per <br> item | Number of <br> items | Total price per <br> ingredient |
| :--- | :--- | :--- | :--- |
| Cabbage | 64 p | 5 |  |
| Pack of carrots | $30 p$ | 20 |  |
| Pack of tomatoes | $£ 1.25$ | 11 |  |
| Cucumbers | 50 p | 9 |  |
| Pack of onions | $£ 1.00$ | 15 |  |
|  |  | Total (£) |  |

Complete the table to show how much has John spent.
$\square$

2 (e) John fills a fruit bowl with 6 apples, 4 plums, 5 oranges and 3 pears.
The first customer chooses a piece of fruit at random.
What is the probability that they choose a pear?


2 (f) John looks at the bills from all the customers.
The range of amounts spent is $£ 22.46$
The largest bill was $£ 24.56$
What was the smallest bill?

Your answer:
$£$

2 (g) John asks his customers to rate the café.

- The customers give four times as many good ratings as excellent ratings.
- The customers also give three times as many excellent ratings as satisfactory ratings.

60 customers rated the café as good.
How many customers rated the café as satisfactory?


## Activity 3: Go-karting

3 (a) Hamid organises a go-karting party for himself and five friends.
The cost is $£ 29.95$ per person.
He uses rounding to estimate the cost for the whole group.
How much is the estimated cost?


3 (b) Hamid needs to book transport.
A small minibus will cost $£ 45$
He has a voucher for $5 \%$ off.
How much will the minibus cost Hamid?


3 (c) The safety instructions show a plan view of the go-kart.


Hamid says that the go-kart is 1.5 m high, 2 m long and 0.6 m wide.
Is Hamid correct?
Explain your answer.
$\square$

3 (d) This table shows the times Hamid and two of his friends take to complete their first lap.

| Person | Time in seconds |
| :--- | :--- |
| Hamid | 39.041 |
| Jane | 39.3 |
| Ikrah | 39.12 |

Write these times in order of fastest to slowest.

Fastest $\qquad$
$\qquad$

3 (e) Which person had the fastest lap?

Your answer:

3 (f) Hamid looks at the times on the leader board for that day.
The times are in seconds.

Calculate the mean time.


3 (g) Here are people's lap times in seconds over the last week:

| 21 | 34 | 27 | 36 | 27 | 38 | 22 | 30 | 40 | 21 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

$$
\begin{array}{lllllllll}
29 & 32 & 20 & 26 & 37 & 31 & 22 & 33 & 27
\end{array}
$$

Using the lap times complete this frequency table:

| Lap time in seconds | Frequency of people |
| :---: | :--- |
| $20-25$ |  |
| $26-30$ |  |
| $31-35$ |  |
| $36-40$ |  |

Plot your results on this bar chart.


3 (h) The friends go to lunch after they have raced.
Bethany has a voucher giving her 35\% off.
Ikrah has a voucher for $\frac{2}{5}$ off.
Who has the better discount?
Show how you decide.

[Total marks: 15]

## Activity 4: Childcare course

4 (a) Natalie teaches a childcare course.
She is planning a trip with 16 students.
They have volunteered to work for two weeks abroad.
They need to raise £2000 per student to pay for the trip.
They have already raised $\frac{7}{8}$ of the money needed.
How much money have they raised so far?


4 (b) They have one eighth left to raise.
Write one eighth in figures.
$\square$

4 (c) Natalie packs children's clothes into boxes.
Each box is a cube with side lengths of 50 cm
The clothes weigh 350 grams (g) per $500 \mathrm{~cm}^{3}$


Calculate the weight of the clothes in each box when the box is full.
Give your answer in kg


4 (d) When the group get on the plane the pilot announces that the temperature is $10^{\circ} \mathrm{C}$ at their destination.

It is $-2^{\circ} \mathrm{C}$ in the UK.

What is the difference in temperature from the UK to their destination?
[1 mark]


4 (e) The volunteers are going to help children in a home.
The ratio of boys to girls in the home is $1: 3$
There are 80 children in total.
$75 \%$ of the boys and $40 \%$ of the girls are under 10
How many boys and how many girls are under $10 ?$


4 (f) Natalie knows that only $60 \%$ of the children can write their name.
She chooses one of the children at random to work with.
On the scale, mark the probability that this child can write their name.


1

4 (g) Write $60 \%$ as a decimal.

Your answer:

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