Level 1 Certificate in Essential Skills Application of Number

Sample 4

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Candidate Name (First, Middle, Last)

Candidate enrolment number DOB (DDMMYYYY)

Candidate signature and declaration*

Assessment date (DDMMYYYY) Centre number

Length of assessment:
1 hour 30 minutes

You should have the following for this assessment

- a pen with black or blue ink
- a pencil and eraser
- a 30cm ruler.

- You may use a calculator.
- You may use a protractor.
- You may use a dictionary.

General instructions

- There are **3** tasks to complete.
- You should spend an equal amount of time on each task.
- Read through each task carefully.
- Show your working out. You may get marks for it.
- Check your calculations.
- Remember to put units on your answers.
- Write all working out and answers in this booklet.
- There are additional pages at the back of this booklet if you run out of space.

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Task 1 Raffle

There are **15** marks available for this task.
You should check all your work as you go along.

Introduction
This task is about a club holding a raffle to raise money.

1A
Each year the total number of raffle tickets sold has increased by 10%
You expect that the number sold this year will go up by the same percentage.

Last year the number of tickets sold was 350

Work out

- how many **more** tickets you expect to sell this year
- the **total** number of tickets you expect to sell **this year.**

Show your working

How many more tickets _____

Total number of tickets you expect to sell _____

(3 marks)

1B
The club will sell the raffle tickets for £2.50 each.

What is the total amount of money from all the tickets you expect to sell?

Show your working

Total amount of money from tickets £ _____

(2 marks)

1C

The club only wants you to spend **up to** $\frac{1}{4}$ of the money from the tickets on prizes.

Work out the **maximum** amount of money you can spend on prizes.

Show your working

Maximum amount you can spend £ _____

(2 marks)

1D

You want to buy **one expensive** first prize and **four cheaper** prizes using up to the maximum amount you can spend.
There must be at least **three different** items as prizes.

You will choose from this list.

Suitable items for prizes	
Tablet	£110.00
Fitness watch	£91.00
Food hamper	£38.00
Radio controlled toy	£33.00
Gift voucher	£30.00
Box of chocolates	£15.00

Which items will you buy **and** what is the total cost?

Show your working

Items	**Number of each**
Tablet	
Fitness watch	
Food hamper	
Radio controlled toy	
Gift voucher	
Box of chocolates	

Total cost £ _____

(3 marks)

1E

Check one of your calculations in **1A, 1B, 1C** or **1D**.

Check it by a **different** method to the one you used originally.
You can use approximation, a reverse calculation or any other suitable different method.

The calculation I am going to check is in (Tick one box)

1A		1B		1C		1D	

Write your check here

(1 mark)

1F

Draw a table to show the other club members what you have worked out.

Include

- how many tickets you expect to sell
- how much money the club will get from that number of tickets
- how much the prizes will cost
- how much money will be left over for the club to spend.

(4 marks)

Task 2 Kitchen units

There are **15** marks available for this task.
You should check all your work as you go along.

Introduction
This task is about planning new kitchen units.

2A
A customer wants some new kitchen units along one wall.
You have to make a scale drawing for the customer.

The kitchen wall is 3.5m wide and 2.75m high.
The scale on the diagram will be 4 centimetres represents 1 metre.

Work out the scaled measurements for the drawing.

Show your working

Width of wall for drawing _____ cm

Height of wall for drawing _____ cm

(2 marks)

2B

Draw a scale diagram of the outline of the **wall**.
Use the graph paper below.

(2 marks)

2C

These are the dimensions of the units available.

Wall unit

Base unit

Customer's instructions

My wall is 3.5m wide.

I want a space of **at least** 80cm at one end of the wall for my tall freezer.

I want units along the rest of the wall.

Work out the maximum number of base units that will fit in the space.

Show your working

Maximum number of base units _____

(3 marks)

2D

Draw the base units on your scale diagram in **2B**.

Label the space for the freezer on the scale diagram.

Space for working

(3 marks)

2E

Each wall unit must be exactly above a base unit with a gap 50cm high between them.

Draw the wall units on your scale diagram in **2B**.

Space for working

(3 marks)

2F

You will decorate the edges of the wall unit doors with plastic strips.

What is the perimeter of the **door**?

Show your working

Perimeter _____

(2 marks)

Extra space for working out and answers

Task 3 Telephone calls

There are **15** marks available for this task.
You should check all your work as you go along.

Introduction
This task is about the helpdesk in a computer company.

3A
The helpdesk has a target for how quickly they answer telephone calls.

Telephone call target

The mean waiting time for callers must be 4 minutes or less.

The table below shows how long it took to answer calls between 2pm and 3pm.

Call waiting times in minutes									
3	3	10	4	4	5	5	6	6	5
4	4	6	5	3	2	4	6	6	3
5	5	4	5	6	3	6	4	2	4

Assume the call waiting times between 2pm and 3pm tomorrow are the same. What is the chance (probability) that if you call tomorrow between 2pm and 3pm your call will be answered in 4 minutes or less?

Explain your answer.

The chance (probability) that the call will be answered in 4 minutes or less is

impossible	☐	unlikely	☐	50/50 chance	☐	likely	☐	certain	☐

(Tick one box)

Explanation

(2 marks)

3B
What was the average (mean) call waiting time between 2pm and 3pm?

Show your working

Mean waiting time _____

(3 marks)

3C
Work out the range of the call waiting times between 2pm and 3pm.

Show your working

Range _____

(2 marks)

3D
What does the range tell you about the call times between 2pm and 3pm?

Comment

(1 mark)

3E

The information below shows how long it took to answer calls between 9am and 2pm on one day.

Call waiting times in minutes						
Time of day	**9-10**	**10-11**	**11-12**	**12-1**	**1-2**	**2-3**
Mean call waiting time	3.7	4.3	3.0	3.1	3.2	

Use your answer from **3B** to complete the table.

Use the information from the table to draw a suitable chart to show the mean call waiting times between **9am and 3pm** and the **target (3A)**.

(4 marks)

3F
Did the helpdesk meet the target about call waiting times?
Give one reason to explain your answer.

Decision **Yes** ☐ **No** ☐

Reason

(1 mark)

3G
The manager listens in to some of the calls to check them.
She listens to her team's calls in the ratio of 1 supervisor call to 5 administrator calls (1:5).

The manager listens to 300 calls in one week. How many of the supervisor calls does she listen to?

Show your working

Number of calls _____

(2 marks)

Spare graph paper for 2B only

Spare graph paper for 3E only

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