Sample Paper 3
Level 1 Functional Skills Mathematics

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 for graph work.
- 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.

You should have the following for this assessment:

- A pen with black or blue ink
- A pencil and eraser which may be used for **diagram/graph work only**

***I declare that I had no prior knowledge of the questions in this assessment and that I will not divulge to any person any information about the questions.**

Task 1 Raffle

There are **15** marks available for this task.

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

You have to decide how many tickets the club expects to sell and what prizes to buy.

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

Last year the number of tickets sold was 326.

Work out

- how many **more** tickets than last year you expect to sell
- 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 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 £ _____

(1 mark)

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 **five cheaper** prizes.
The club secretary gives you a list of suitable items to choose from.

Suitable items for prizes	
MP3 player	£95.00
Digital camera	£91.00
Watch	£38.00
Radio controlled toy	£33.00
DVD voucher	£30.00
Box of chocolates	£15.00

There must be at least **four different** items as prizes.

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

Show your working.

Items	**How many of each**
MP3 player	
Digital camera	
Watch	
Radio controlled toy	
DVD voucher	
Box of chocolates	

Total cost £ _____

(3 marks)

1E

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)

1F

Choose one of your calculations from **1A** or **1B** or **1C** to show a check.

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

1A		**1B**		**1C**	

(Tick one box)

Write your check here

(2 marks)

Extra space for working out and answers

Task 2 Kitchen units

There are **15** marks available for this task.

Introduction

This task is about planning part of a kitchen.

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

2A
The customer's kitchen wall is 3.5m wide and 2.75m high.
You will draw a scale diagram where 4 centimetres represents 1 metre.

Work out the scaled measurements for the plan.

Show your working.

Width of wall for plan _____

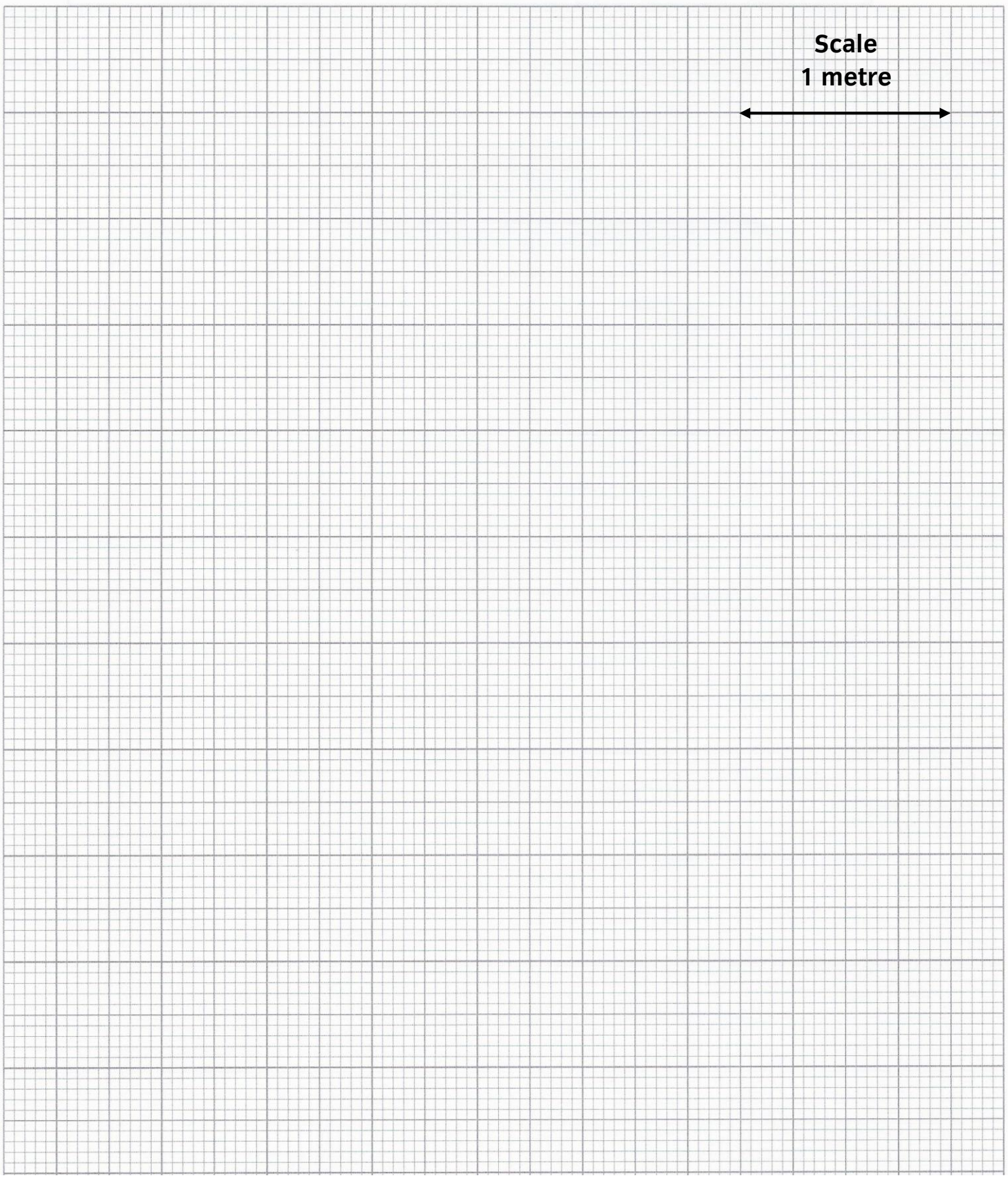
Height of wall for plan _____

(2 marks)

2B

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

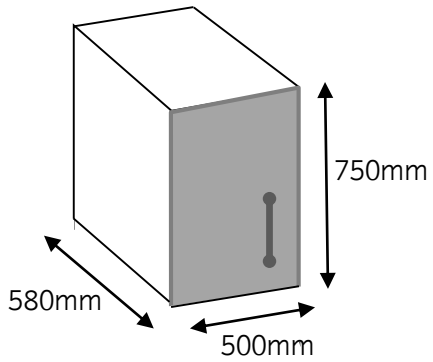
(2 marks)



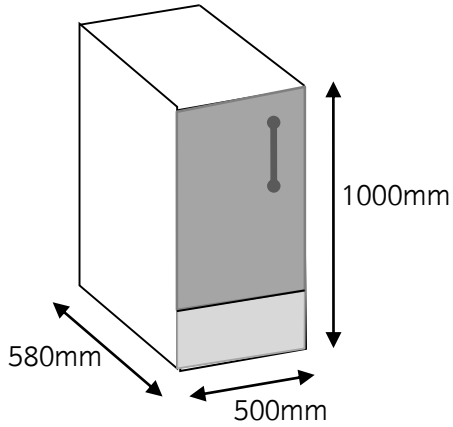
2C

These are the dimensions of the units that you sell.

Wall units



Base units



Customer's instructions

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.

The base units must have no spaces between them.

Each wall unit must be exactly above a base unit.

Work out the maximum number of base units **and** the size of the gap for the freezer.

Show your working.

Maximum number of base units _____

Size of gap for freezer _____

(3 marks)

2D

There should be a gap 50cm high between the base units and wall units.

Draw the base units and the wall units on your scale diagram in **2B**. Mark the space for the tall freezer.

Label the scale diagram with the space for the freezer.

(6 marks)

2E

You need to show a check of how you used your scale in **2B** or **2D.**

Explain how you know one of the lines on your diagram is the correct scaled length.

The scaled line I am going to check is in

2B		**2D**	

(Tick the box)

Write your check here

(2 marks)

Extra space for working out and answers

Task 3 Telephone calls

There are **15** marks available for this task.

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

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

Telephone call target

When our customers ring for advice
the mean waiting time before we answer a call will be 4 minutes or less.

The table below shows how long it took to answer calls between 3pm and 4pm.

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

3A
If the call waiting times between 3pm and 4pm tomorrow are similar, what is the chance (probability) that a 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

Certain	
Likely	
50/50 chance	
Unlikely	
No chance	

(Tick one box)

Explanation

(2 marks)

3B

What was the mean call waiting time between 3pm and 4pm?

Show your working.

Mean waiting time _____

(3 marks)

3C

Work out the range of the call waiting times between 3pm and 4pm.

Show your working.

Range _____

(2 marks)

3D

The information below shows how long it took to answer calls between 10am and 3pm on one day.

Call waiting times in minutes						
Time of day	**10-11**	**11-12**	**12-1**	**1-2**	**2-3**	**3-4**
Mean call waiting time	3.7	4.3	3.0	3.1	3.2	
Range of call waiting times	3.2	4	3	2	3	

Compare the range for 3pm to 4pm with the ranges for the other times of the day.
Explain what this shows.

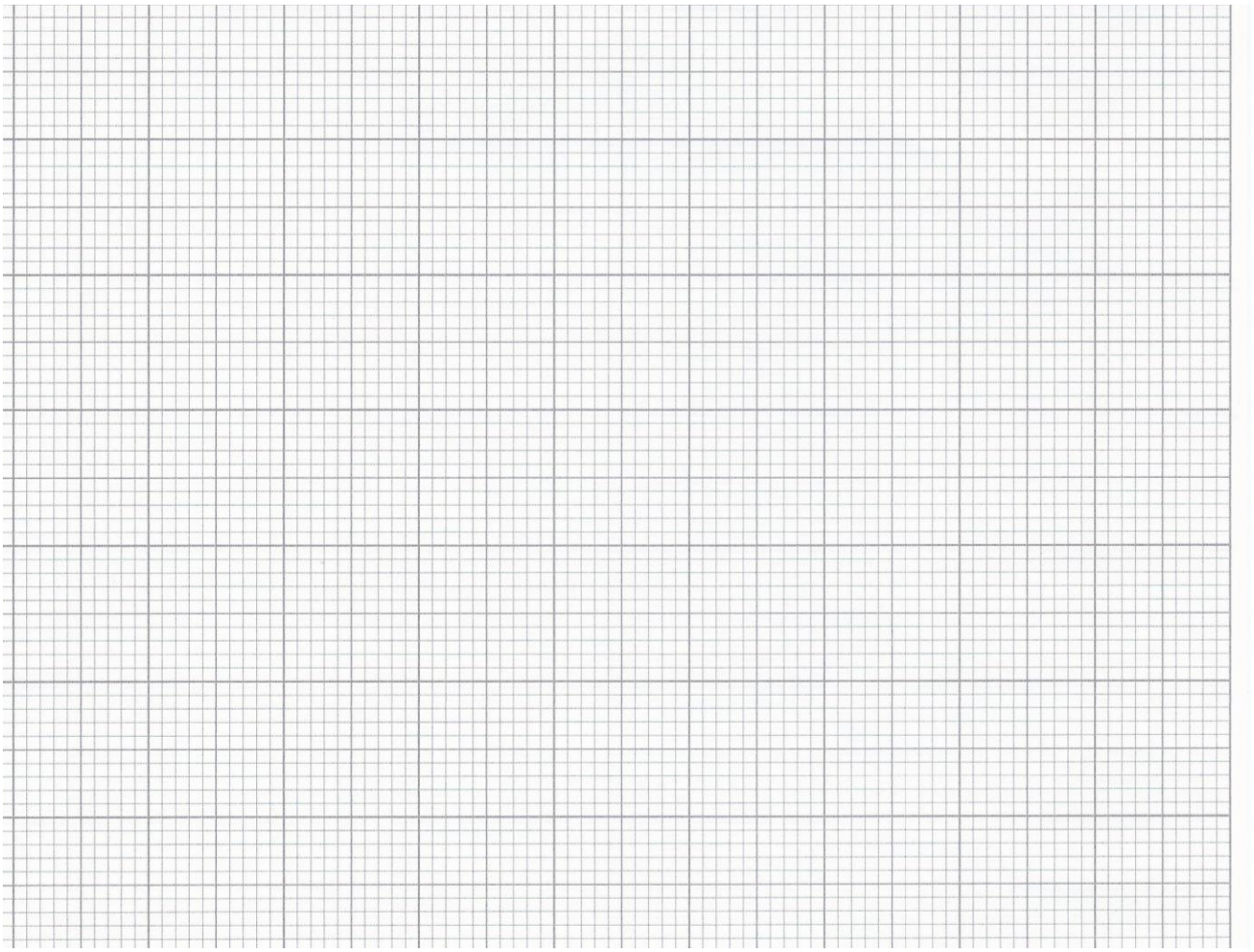
(1 mark)

3E

Complete the table of mean call waiting times in **3D**.

Use the information from the table to draw a suitable chart to show the **mean call waiting times** between 10am and 4pm and the target.

(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

Choose one of your calculations from **3B** or **3C** to show a check.

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 **3B** ☐ **3C** ☐

(Tick one box)

Write your check here

(2 marks)

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