

Functional Skills Mathematics  
Level 1 sample assessment

Sample paper 1

Candidate Name (First, Middle, Last)

Candidate enrolment number

DOB (DDMMYYYY)

Candidate signature

Assessment date (DDMMYYYY)

Centre number

Total marks	
Task	Mark
Total	

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



General instructions

- There are **3** tasks to complete.
- Each task is worth between 14 and 16 marks.
- You should spend an equal amount of time on each task.
- Read through each task carefully.
- Show your working out. You will get marks for it.
- Check your calculations.
- Remember to put units on your answers.
- Write all working out and answers in this booklet.

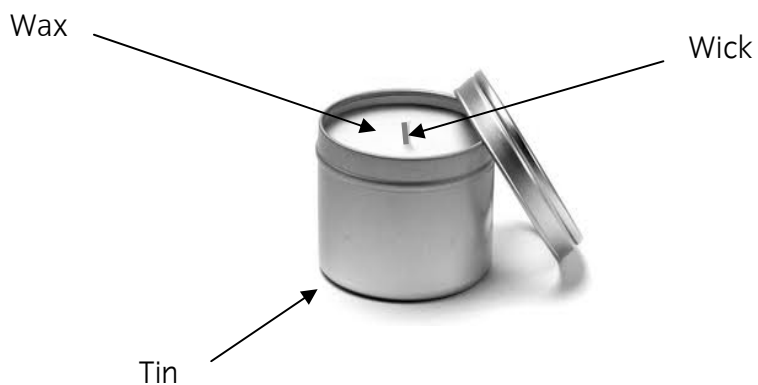
## Task 1      Making candles

There are **16** marks available for this task.

### Introduction

This task is about starting your own business making and selling candles.

To make candles you put a wick in each tin and then melt wax into the tins.



You start by making **200** candles in small tins.

You have to

- order the wax, the wicks and the tins
- decide how much to sell each candle for.

**1A**

The table shows the prices of packs of wax.

Item	Size	Quantity	Price for each pack
 <b>Pack of wax</b>	Small	800g	£3.99 for 1 pack
	Medium	5kg	£16.50 for 1 pack
	Large	10kg	£27.75 for 1 pack

Each candle needs **75g** of wax.

Work out the cheapest way to buy the wax for **200** candles.

**1kg is 1000g.**

Show your working.

The cheapest way is to buy this number of packs

Small \_\_\_\_\_

Medium \_\_\_\_\_

Large \_\_\_\_\_

**(3 marks)**

**1B**

The order form below shows the prices of small tins and wicks.

Work out the cheapest way to buy the **tins** and **wicks** for **200** candles.

Then fill in the order form and work out the **total cost**.

Show your working.

Now fill in the order form.

Include your answer from 1A and work out the **total cost**.

ORDER FORM					
Item	Size	Quantity	Price	Number	Cost
 <b>Small tin</b>		50 to 99	48p each		
		100 or more	44p each		
 <b>Pack of wicks</b>	Small	20	£1.15 for 1 pack		
	Medium	100	£5.45 for 1 pack		
 <b>Pack of wax</b>	Small	800g	£3.99 for 1 pack		
	Medium	5kg	£16.50 for 1 pack		
	Large	10kg	£27.75 for 1 pack		
<b>Total cost</b>					<b>£</b>

(4 marks)

**1C**

You can make **30** candles in one hour.

You pay yourself **£12 an hour**.

Work out your pay for making 200 candles.

Show your working.

Your pay for making 200 candles \_\_\_\_\_

**(2 marks)**

**1D**

Work out how much each candle costs to make.

Remember the cost of the tins, wicks and wax and your pay.

Show your working.

How much each candle costs to make \_\_\_\_\_

**(2 marks)**

**1E**

The selling price must include some profit.

The profit can be up to 100% of how much a candle costs to make.

What percentage profit will you charge?

Explain **why** you chose that percentage.

**(1 mark)**

**1F**

Work out how much you will sell each candle for.

Show your working.

I will sell each candle for \_\_\_\_\_

**(2 marks)**

**1G**

Check one of your calculations.

Write your check here.

**(2 marks)**

## Task 2      Garden decking

There are **14** marks available for this task.

### Introduction

This task is about choosing some decking for your garden.

Decking is a wooden surface that people have in their gardens.

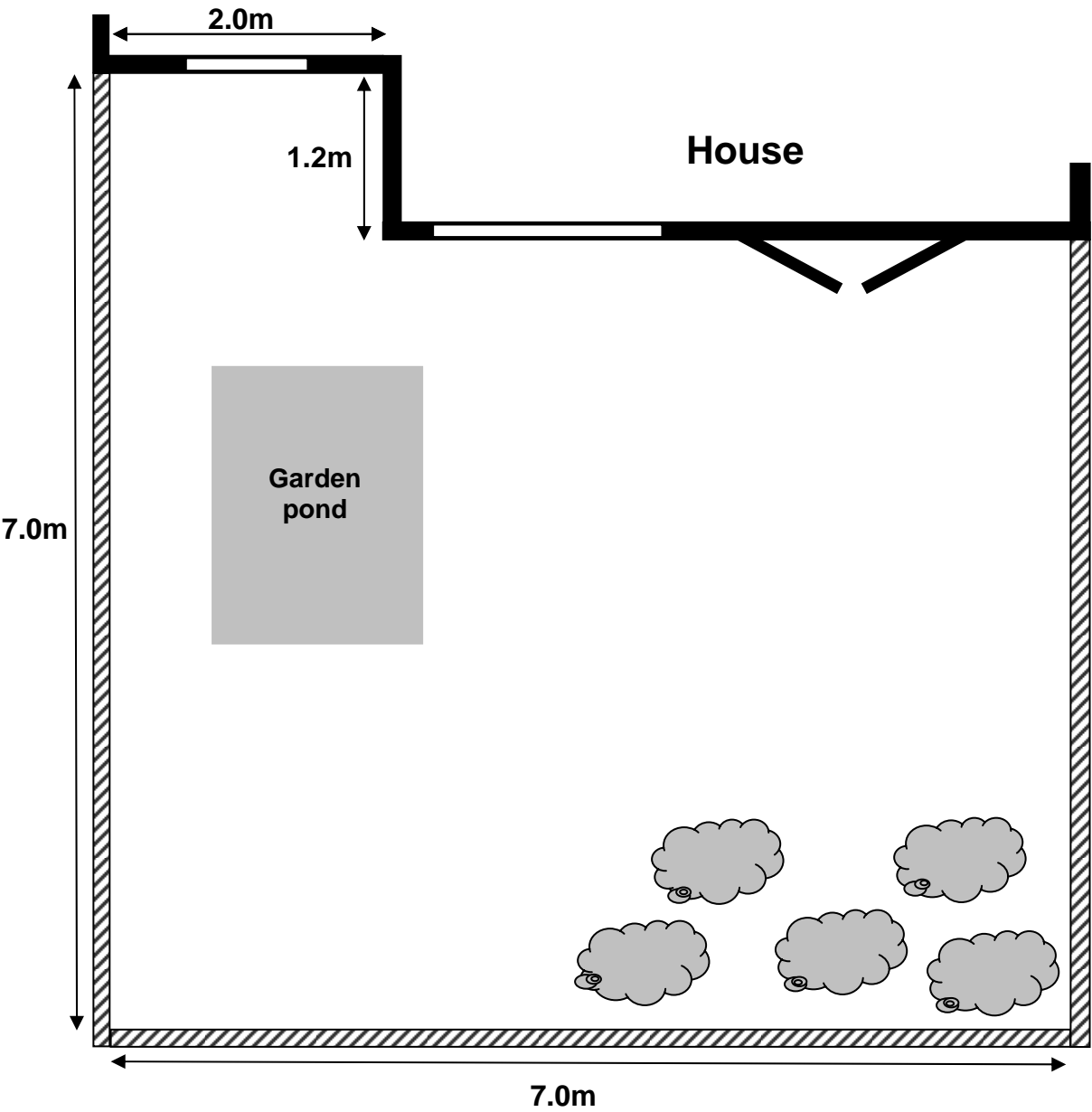


Decking

You have to

- decide which decking to buy
- work out how much varnish you will need.

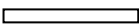




Scale plan of your garden



Scale

2cm on the plan represents 1m.

Key

-  window
-  fence
-  wall
-  doors
-  tree



The decking will be in the shape of a rectangle. It must

- be by the doors
- be at least 1 m from the garden pond and from the trees
- be as large as possible.

## 2A

Draw accurately where the decking could go on the plan on the opposite page.

**(2 marks)**

## 2B

Here are four decking kits.

Name of decking kit	Length	Width	Price
Oxford	3.0m	2.4m	£155
Cambridge	3.6m	3.0m	£199
Durham	4.0m	3.6m	£225
York	5.0m	4.2m	£249

Which decking kit will you buy?

Name of decking kit \_\_\_\_\_

**(1 mark)**

Explain how you are sure that it will fit in your garden.

**(2 marks)**

Information about the decking kits again.

Name of decking kit	Length	Width	Price
Oxford	3.0m	2.4m	£155
Cambridge	3.6m	3.0m	£199
Durham	4.0m	3.6m	£225
York	5.0m	4.2m	£249

## 2C

Here is the cost of varnish.

**Varnish    £19.99**



A tin covers  
between  $15\text{m}^2$  and  $20\text{m}^2$  of decking

The top of the decking needs **two coats** of varnish.

Work out how many tins of varnish you need.

Show your working.

Number of tins \_\_\_\_\_

**(5 marks)**

**2D**

Work out the **total** cost for the decking and varnish.

Show your working.

Total cost for decking and varnish \_\_\_\_\_

**(2 marks)**

**2E**

Check one of your calculations.

Write your check here.

**(2 marks)**

### Task 3      Charity fundraising

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

#### Introduction

This task is about doing a parachute jump to raise money for charity.

The picture shows a person doing a parachute jump.



12 people in your company do a parachute jump.

Your manager asks you to:

- compare the amount raised by each team of people
- present the information in a chart or graph.

Here is information from the three teams.

Team 1 (Admin)	
4 people did the parachute jump:	
Name of person	Money raised
Salma	£180
Charlie	£150
Rose	£190
Mrs T	£120

Team 2 (Sales)
5 people jumped.
Kareem raised ..... £140
Nigel raised ..... £110
Vicky raised .....£200
Yasir raised .....£260
Chris raised .....£210

Team 3 (Packing)
3 people jumped.
Sophie, Nada and Martin raised £200 each.

### 3A

Which team has the **greatest total**?

Show your working.

Team \_\_\_\_\_

(2 marks)

### 3B

Which team has the **greatest average** (mean)?

Show your working.

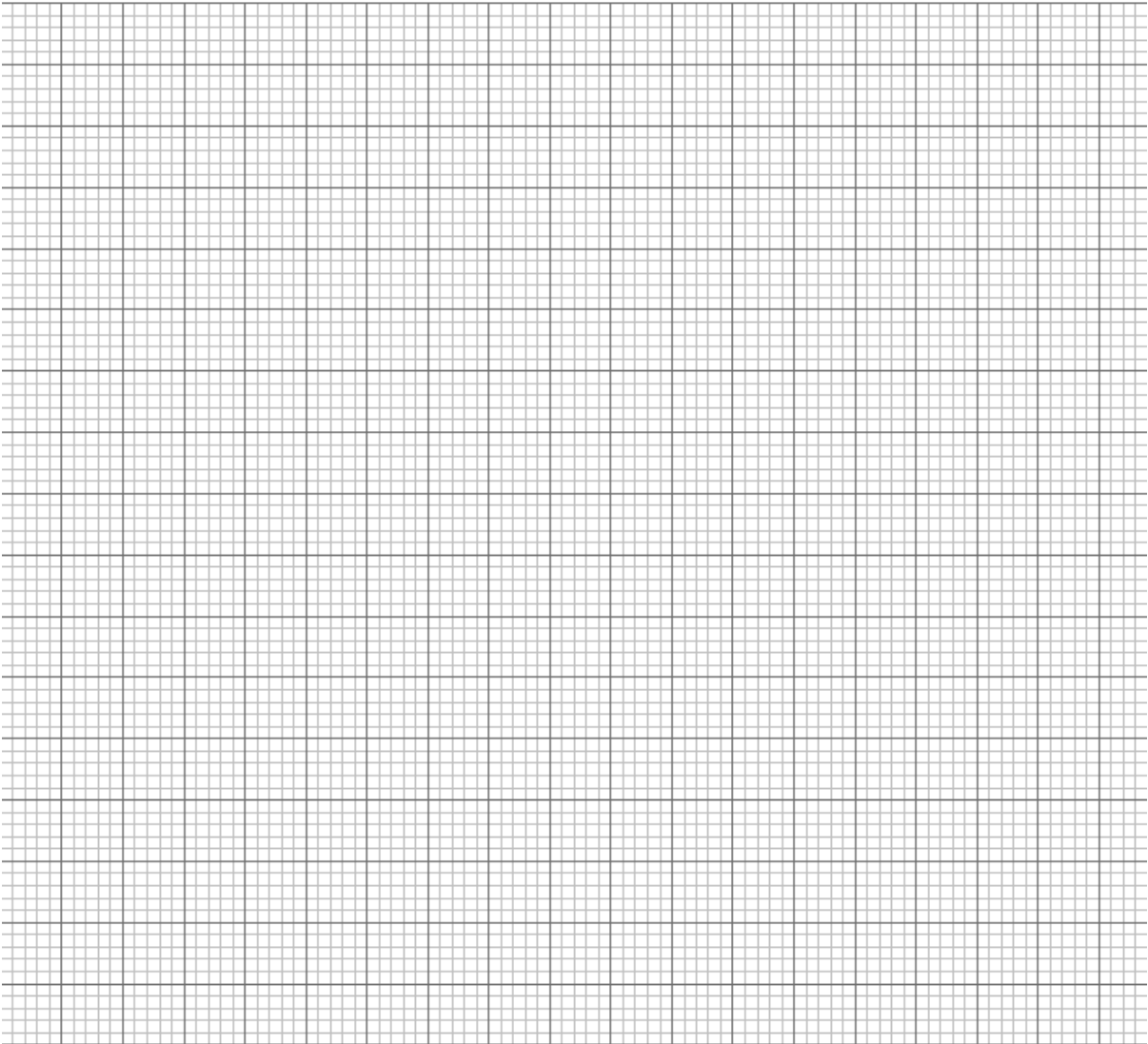
Team \_\_\_\_\_

(3 marks)

3C

Draw a suitable chart or graph to show the **total** amount **each team** raised.

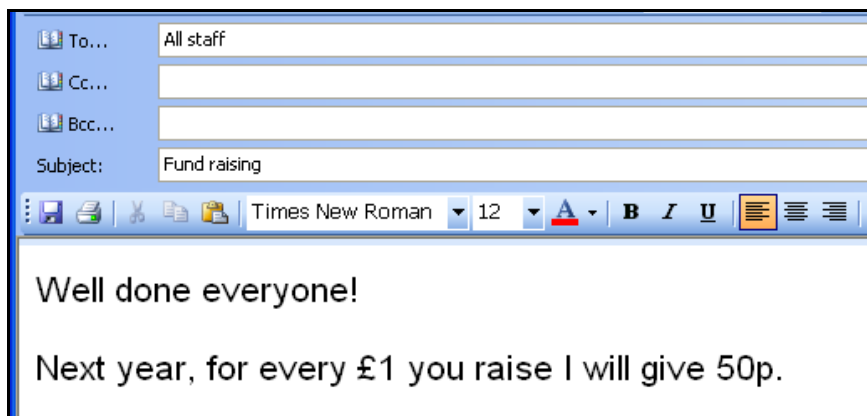
Title:



(5 marks)

### 3D

Your manager sends this email:



Next year, **15** people jump.

The average amount they raise is **£140 per person**.

How much money is raised in **total**?

Remember to include the money that the manager gives.

Show your working.

Total \_\_\_\_\_

**(3 marks)**

### 3E

Check one of your calculations.

Write your check here.

**(2 marks)**

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