



Functional Skills Mathematics Level 2 sample assessment



Sample paper 3

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May 2015
Version 1-3

Candidate Name (First, Middle, Last)

Candidate enrolment number

DOB (DDMMYYYY)

Candidate signature and declaration*

Assessment date (DDMMYYYY)

Centre number

Total marks	
Task	Mark
Total	

The actual Level 2 assessment will be 2 hours. There is no imposed time limit for this sample assessment, as it is intended as a teaching/learning tool to help prepare candidates for the actual Level 2 assessment. It is the intention that this sample paper reflects the requirements of a live Level 2 assessment. However, it is recommended that learners are allowed as much time as necessary to complete the whole assessment so that they can experience all three tasks.

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.
- 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.



***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 Organising a theatre show

There are **25** marks available for this task.

You should check all your work as you go along.

Introduction

This task is about organising a theatre show.



You are helping with the stage management for a show put on by a theatre club for young people. There are three groups that will be performing.

You need to choose performances for the show, work out the order of the performances and draw up a schedule for the group rehearsals (practice sessions).

Email from the show producer

To: fscandidate@candgtheatregroup.com

Subject: Plans for the show

Hello

Just to let you know, I've booked the theatre from 6pm to 8:30pm so that we have time for opening the theatre and clearing up after the show. Our show will last for 75 minutes including one interval of 20 minutes.

Please choose performances for the show. Work out the order of the performances, the start and finish times and draw up a schedule for the group rehearsals.

Each part of the show must have

- at least one drama performance, one song performance and one dance performance
- at least one performance from each of the theatre groups.

Thanks
Zak



List of group performance times		
Type of performance	Theatre group	Performance time (min:sec)
Drama		
Play scene	Group C	8:20
Reading	Group B	4:20
Poem	Group B	4:10
Sketch	Group C	6:00
Songs		
40s song	Group C	5:20
50s song	Group A	5:10
60s song	Group A	2:10
70s song	Group C	6:10
80s song	Group B	3:30
Dance		
Folk dance	Group A	6:00
Tap dance	Group A	4:50
Street dance	Group C	6:20
Ballet dance	Group C	9:40
Jazz dance	Group C	7:30

Note about rehearsals

Rehearsals

Final rehearsal will be the day before the first night of the show for all groups.

Each theatre group must have **four** practice sessions before the show. They will take place on the four normal meeting nights immediately before the final rehearsal.

There will be **no practice session** on 5th November.





Calendar													
October							November						
Sun	Mon	Tues	Wed	Thu	Fri	Sat	Sun	Mon	Tues	Wed	Thu	Fri	Sat
	1	2	3	4	5	6					1	2	3
7	8	9	10	11	12	13	4	5	6	7	8	9	10
14	15	16	17	18	19	20	11	12	13	14	15	16	17
21	22	23	24	25	26	27	18	19	20	21	22	23	24
28	29	30	31				25	26	27	28	29	30	

Group A meets on Mondays. **Group B** meets on Wednesdays. **Group C** meets on Thursdays.

Performance days are
13th and 14th November





1A

You need to draw up a schedule for the rehearsals (practice sessions) and work out the timing and order for the performances in the show.

Plan how to solve this task. Write down your plan, including the steps you will use.

(3 marks)





1B

Carry put your plan to make a schedule for rehearsals and the order of performances.

Show your working. You should check your work as you go along. Write down one of your calculation checks.

Check

(11 marks + 2 check marks)





1C

Draw a table to present your schedules for rehearsals and performances.

--

(5 marks)

1D

Explain why you have chosen your start and finish times.

Explanation

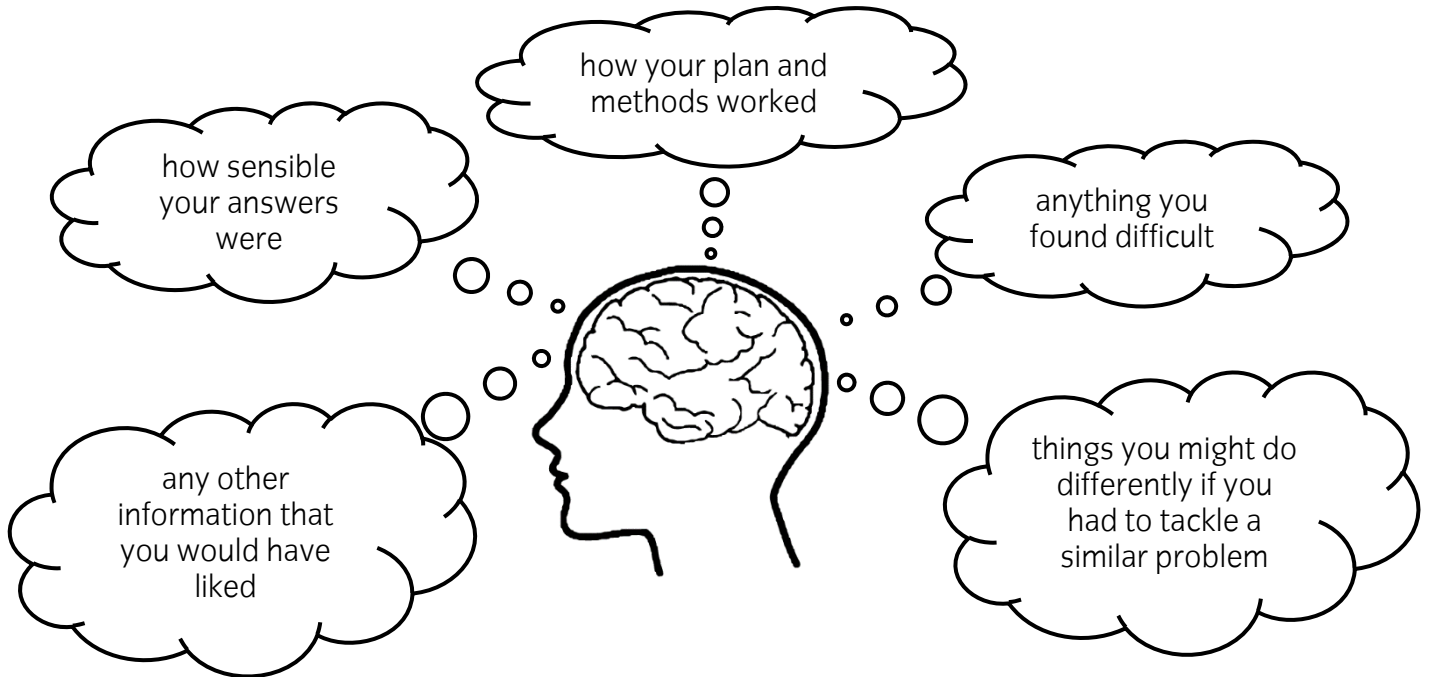
(1 marks)



1E

You need to review how well you did the task.

Think about...



Explain **three** of the most important points.

(3 marks)

Task 2 Camping

There are **25** marks available for this task.
You should check all your work as you go along.

Introduction

This task is about planning a camping trip with a group of friends.

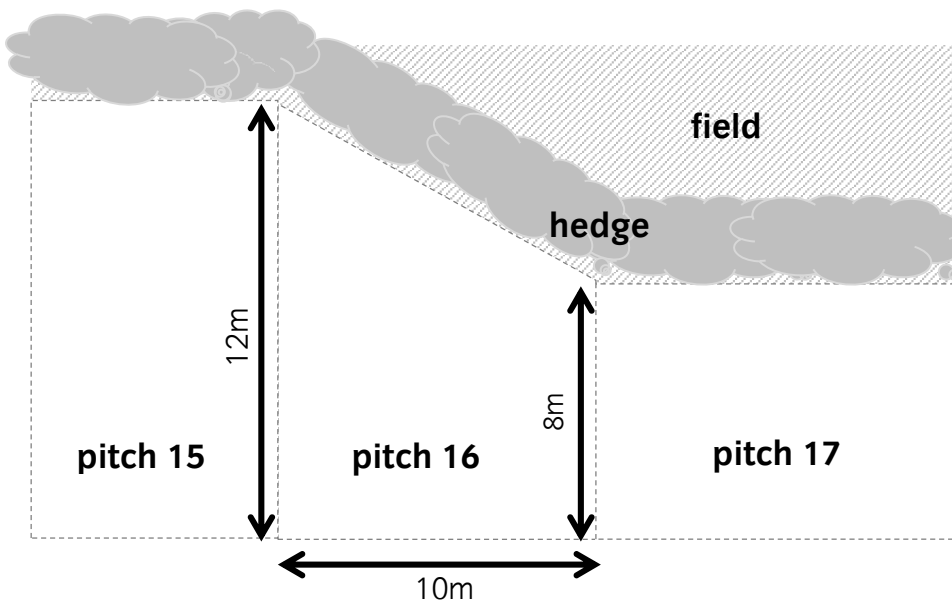
You have booked a pitch (space) at a campsite.



2A

You have three tents and need to plan where they will go on your pitch (pitch 16).

Here is a rough sketch of part of the campsite.



Draw a **scale plan** of pitch 16. Show your scale.
Use the graph paper opposite.

(4 marks)

2B

These are the dimensions of the tents you and your friends will take.

You and Sam	Lora and Tammy	Linda, Rosie and Millie



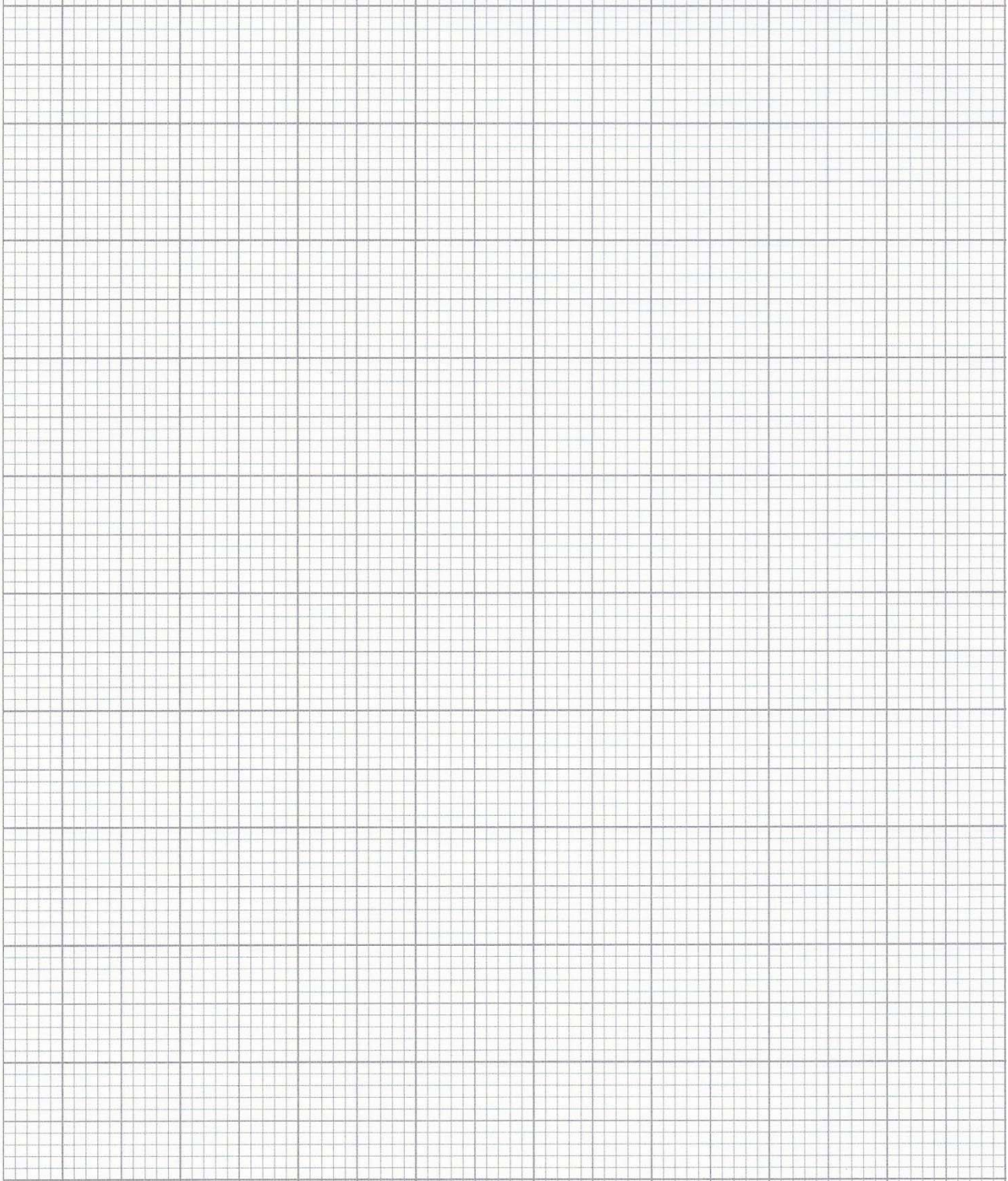
Draw the three tents to scale on your plan.

The tents must be

- at least 1 metre away from the edges of the pitch
- at least 2 metres away from each other.

Label your plan clearly. Include which friends will sleep in each tent.

(5 marks)



**2C**

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

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	<input type="checkbox"/> 2A	<input type="checkbox"/> 2B
(Tick one box)		
Write your check here		

(2 marks)**2D**

You and your friends will stay for **4 nights**. You agree to share the costs equally.

Camp site charges	
<i>Charges per night</i>	
Tent (including 2 people)	£15
Extra person	£4

You must pay a deposit of 35% of the total cost when you book and pay the remainder on arrival.

How much must **each person** pay for the deposit?

How much must **each person** pay on arrival?

Show your working

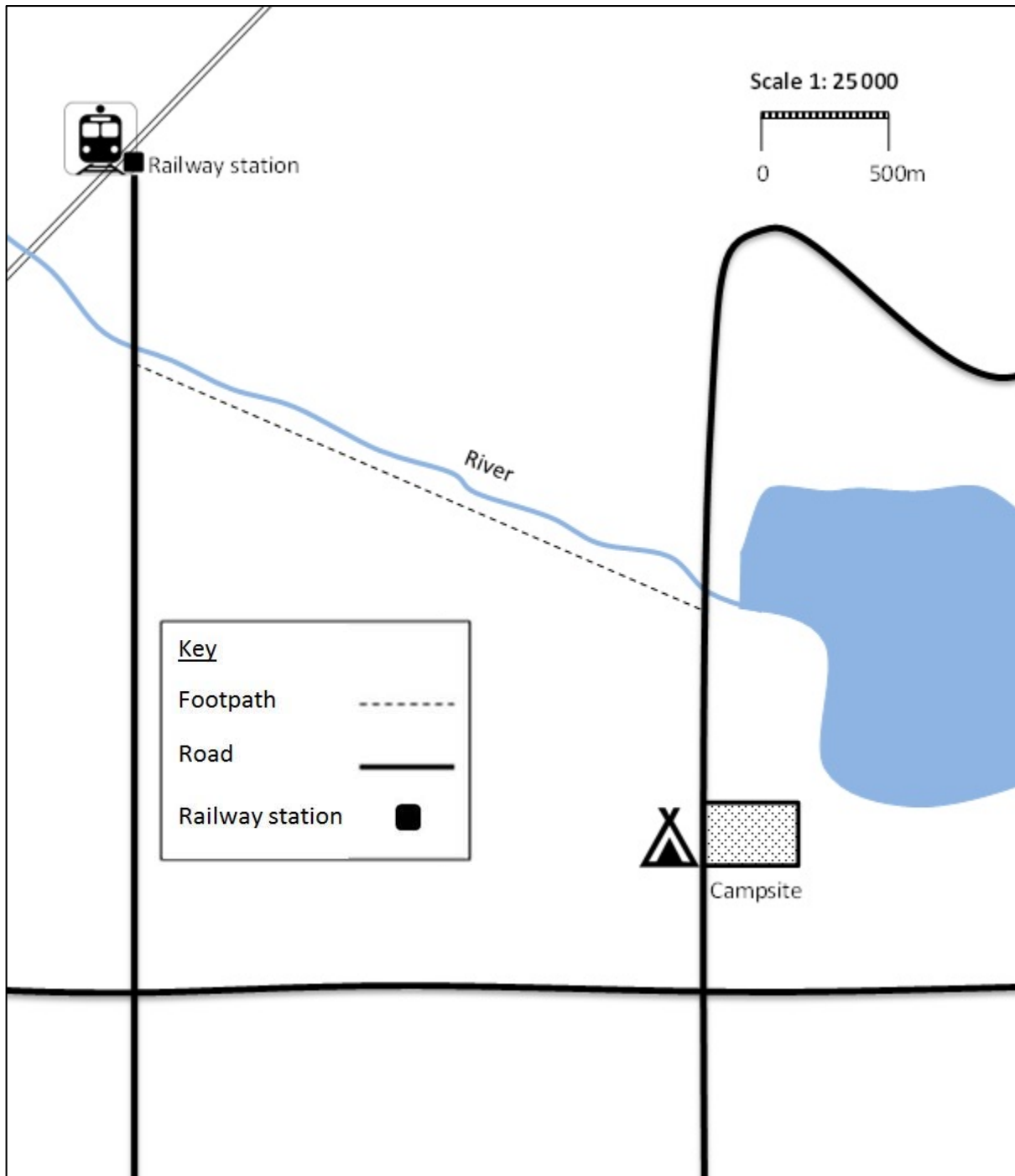
Deposit to pay per person £ _____

Amount to pay on arrival per person £ _____

(6 marks)

2E

You will need to walk from the Railway station to the camp site using roads and footpaths only.



Measure the distance of the shortest route. Give your answer in kilometres.

Space for working

Distance of shortest route _____ kilometres

(4 marks)



2F

It takes you 20 minutes to walk each mile.

How many minutes will it take you to walk from the railway station to the camp site by the shortest route?

$1 \text{ kilometre} = \frac{5}{8} \text{ of a mile}$

Space for working

Number of minutes _____

(4 marks)



Task 3 Drink sales

There are **25** marks available for this task.

You should check all your work as you go along.



Introduction

This task is about selling cold drinks in summer.

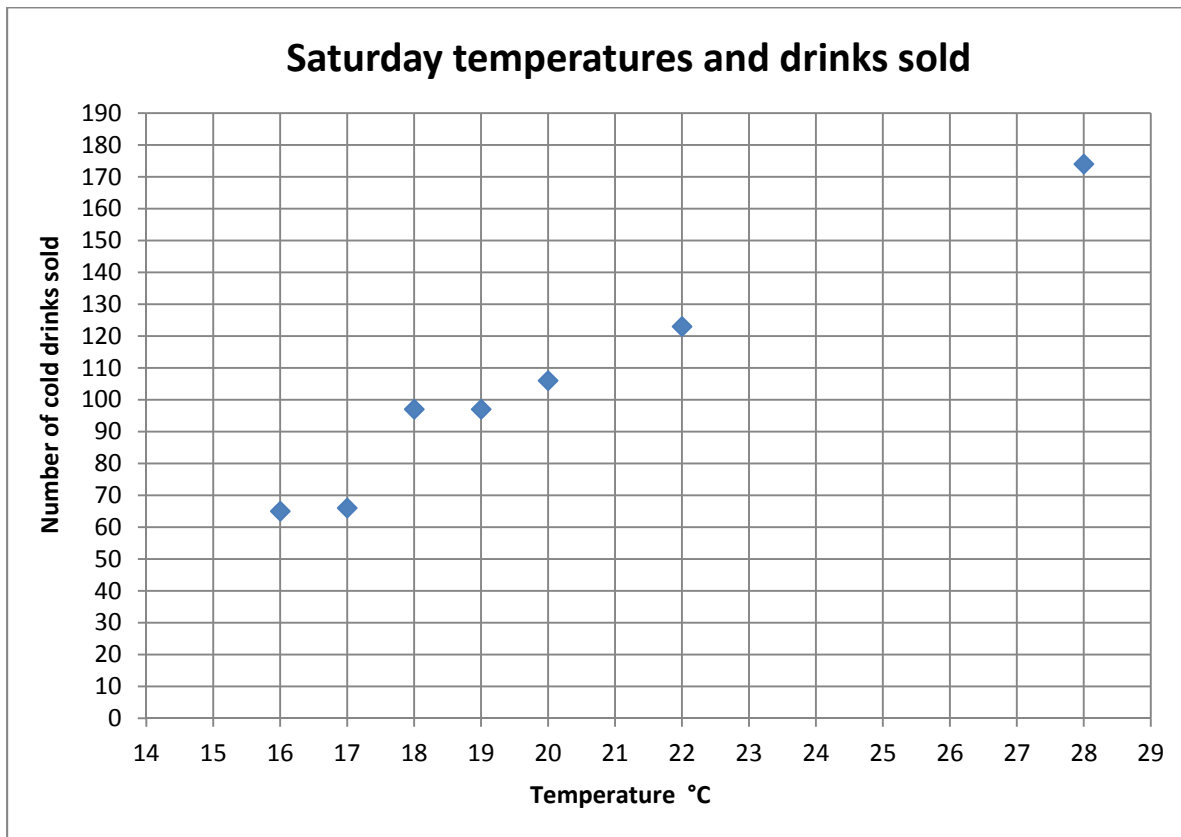
You work at a drinks stall in a park on Saturdays.

At the start of each Saturday you have to collect the cold drinks you think you will sell. You keep a record of the maximum temperature each Saturday and the drinks you sold.

3A

This scatter graph shows the maximum temperatures for the last seven Saturdays and the number of drinks you sold.

Draw a trend line to show the relationship between temperature and the number of drinks sold.



(2 marks)

3B

This mobile phone app shows the temperature forecast for tomorrow (Saturday 24th August).



Use the mobile phone app and your trend line to find the number of cold drinks you expect to sell tomorrow. Show on the scatter graph how you found your answer.

Number of cold drinks _____

(2 marks)

3C

Your boss sets you a sales target for tomorrow. He wants you to sell 50% more drinks than the average sales for the last four Saturdays.

Work out the mean sales **for the last four Saturdays**.
Work out the sales target for tomorrow.

Date (Saturday)	06 July	13 July	20 July	27 July	03 August	10 August	17 August
Cold drink sales	97	65	106	66	97	123	174
Temperature (°C)	18	16	20	17	19	22	28

Show your working

Mean sales for the last four Saturdays _____

Sales target for tomorrow _____

(6 marks)



3D

Choose one of your calculations in **3C** to show a check.
Check it by a **different** method to the one you used originally.

Write your check here.

(2 marks)

3E

Do you expect to reach this sales target tomorrow? Explain your decision.

Decision **Yes** **No**

(Tick one box)

Explanation

(2 mark)



**3F**

You sell three different flavours of cold drink.

The table shows how many of each flavour you sold on the last four Saturdays.

The total number of all drinks sold was 460.

Work out the total sold for each drink.

Work out the percentage of all the drinks sold that were

- Cola
- Lemon
- Orange.

Use your answers to complete the table.

Date	Flavour			All drinks sold
	Cola	Lemon	Orange	
27 July	34	26	6	66
3 August	46	39	12	97
10 August	64	49	10	123
17 August	86	70	18	174
Total sold				460
Percentage sold				100%

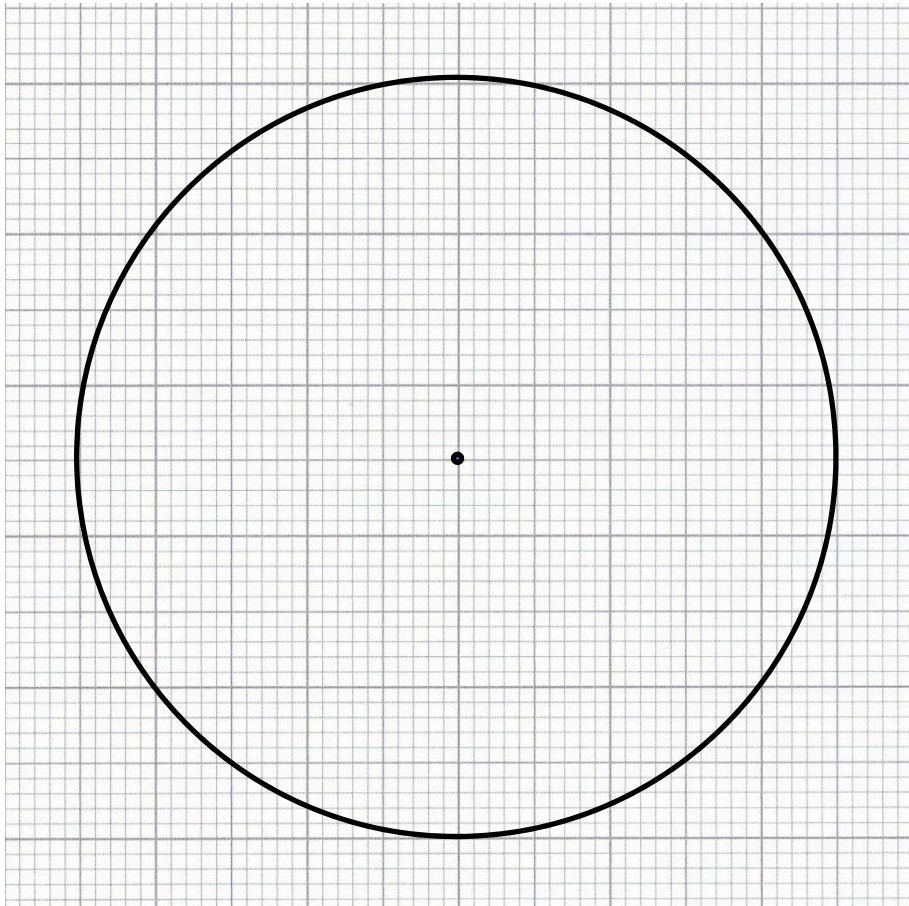
Show your working

(4 marks)



3G

Draw a pie chart to show the percentages of the different flavours of drinks sold. Label your pie chart.



(4 marks)

3H

Use the sales target in 3C to work out how many of each flavour of drink you need to collect tomorrow.

Show your working

Cola _____ Lemon _____ Orange _____

(3 marks)

End of assessment



Extra space for working out and answers





Published by City & Guilds
1 Giltspur Street
London
EC1A 9DD
T +44 (0)844 543 0000
F +44 (0)20 7294 2413
www.cityandguilds.com

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