

Sample Assessment Material

with example answers and examiner marks

These marked sample assessment papers are to aid in teaching and learning and should be used as a guide only.

eraser, ruler graduated in centimetres, pair of compasses.

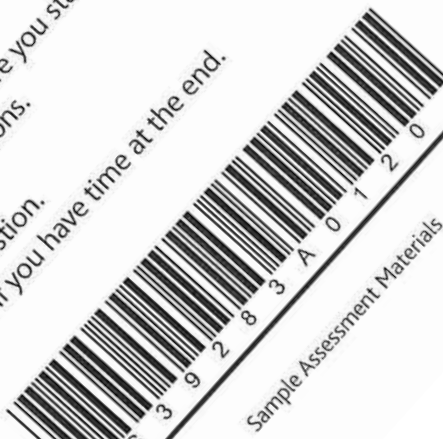
- Use a black ink or ball-point pen.
- Write your name and candidate number in the boxes at the top of this page with your name, number and candidate number.
- Answer **all** questions.
- There may be more space than you need.
- **Calculators may be used.**

Information

- The total mark for this paper is 48.
- The marks for **each** question are shown in brackets – use this as a guide as to how much time to spend on each question.
- **Where you see this sign you should show clearly how you get your answers as marks will be awarded for your working out.**

Advice

- Read each question carefully before you start to answer it.
- Show all stages in the calculations. Keep an eye on the time.
- Check your answers if you have time at the end.



Sample Assessment Materials

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5

Write your name here

Surname

Kazmierczyk

Other names

Sylvia

Edexcel
Functional Skills

Centre Number

1 3 1 2 0

Candidate Number

Mathematics

Level 2



Sample Assessment Material

Time: 1 hour 30 minutes

Paper Reference

FSM02/01

You must have:

Pen, calculator, HB pencil, eraser, ruler graduated in centimetres and millimetres, protractor, pair of compasses.

Total Marks

38

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- **Calculators may be used.**

Information

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Advice

- Read each question carefully before you start to answer it.
- Show all stages in the calculations.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

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What should the correct **Total claim** be?

(4)

Use the box below to show clearly how you get your answer.



$$28 \times 29 = \pounds 8.12 \quad \checkmark$$

$$4.80 + \pounds 3.40 = \pounds 8.20 \quad \checkmark$$

$$122.50 + \pounds 8.12 + 8.20 = \underline{\pounds 138.82} \quad \checkmark$$

4

(Total for Question 1 = 4 marks)

Draw a chart or table to show the times and rooms for the 5 people being interviewed.

(4)

Use the box below to show your answer clearly.

		Ali	Ben	Charlie	Dan	Erica
9.00	15mins	Room 1	Room 2	Room 3	Waiting	Waiting
9.15	5min				Room 1	Room 2
9.20	15min	R 3	Waiting	Waiting	R 1	R 2
9.35	5min					
9.40	15mins	R 2	R 1	Waiting	R 3	Waiting
9.55	5mins					
10.00	15mins	Waiting	R 3	R 1	R 2	Waiting
10.15	5mins					
10.20	15mins	Waiting	Waiting	R 2	Waiting	R 1
10.45	5mins					
10.50	15mins	Waiting	Waiting	Waiting	Waiting	R 3

Should be 10:20

All people allocated to rooms.

All criteria met.

Error in last three times.

2 + 1 = 3

(Total for Question 2 = 4 marks)

(b) Which job pays the most money?

(6)

Use the box below to show clearly how you get your answer.

$$\text{Able Computer Sales} = \underline{\pounds 23,000} \checkmark$$

$$\text{Beta IT Support} = \underline{\pounds 23,400} \checkmark$$

$$\text{Compu Systems} = \pounds 1800 \times 12 = \pounds 21600$$

$$\pounds 22000 \div 100 = \pounds 220 \checkmark$$

$$\pounds 21600 + \pounds 220 \overset{\times 12}{=} \underline{\pounds 21,820}$$

missing.

$$\text{Digital Hardware} = \pounds 20,000 \div 100 \times 20$$

$$= 4000 \checkmark$$

$$\pounds 20,000 + 4000 = \underline{\pounds 24,000} \checkmark$$

$$3 + 2 = \textcircled{5}$$

Digital Hardware

- All converted to yearly salaries for comparison
- Compu systems - commission worked out correctly but only added on at end - should have been included each month.
- Correct decision made for candidate's figures.

(Total for Question 3 = 8 marks)

The height of the hedge is 3 m.

Should the council order the neighbour to cut the hedge?

(3)

Use the box below to show clearly how you get your answer.



NO because the maximum (√ft)
height for this hedge is 4.6 m.
This is a correct decision for
the candidate's value of 4.6m
so gains a mark.

$$0 + 1 = 1$$

(Total for Question 4 = 3 marks)

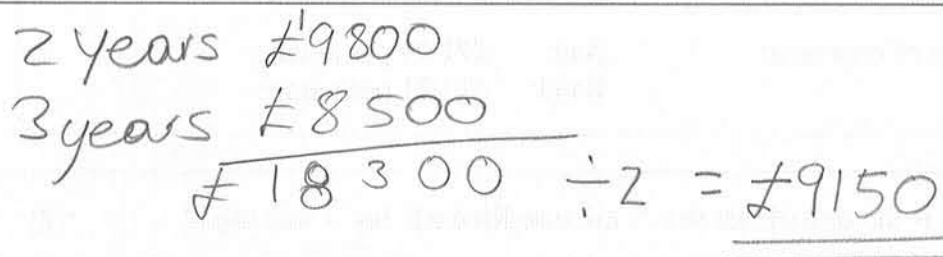
The council wants to buy another van of the same make and model to deliver meals.

One van is 2.5 years old.

(b) How much should the council expect to pay for the van?

(2)

Use the box below to show clearly how you get your answer.


$$\begin{array}{r} 2 \text{ years } \pounds 9800 \\ 3 \text{ years } \pounds 8500 \\ \hline \pounds 18300 \div 2 = \underline{\underline{\pounds 9150}} \end{array}$$

(a) Graph - a bar graph is not appropriate - the candidate should have drawn a line graph or scatter graph

(b) Calculation - the candidate has used the values in the table to calculate a linear midpoint and arrives at an appropriate estimate.

$$0 + 2 = \textcircled{2}$$

(Total for Question 5 = 5 marks)

Jenny has to reduce the cost of grit mixture for the council.
She recommends changing to the following mixture.

Jenny's mixture

Grit mixture has a salt content of 25% by weight.

The council will still use 300 tonnes of this grit mixture **each day** the roads are icy.
The cost of materials has **not** changed.

It is predicted that there will be **29** days in 2010/11 when the roads are icy.
Jenny compares the cost of her plan with last year's plan for 29 days.

Jenny says her plan will cost less than last year's plan.

(b) What is the difference in cost for the council if they use Jenny's mixture for 2010/11? (6)

Use the box below to show clearly how you get your answer.



$$300 \div 4 = 75 \text{ tonnes of salt}$$

$$75 \times 29 \text{ days} = 2175 \times \pounds 71.95 = \pounds 156491.25$$

$$300 - 75 = 225 \text{ tonnes of sand}$$

$$225 \times \pounds 12.21 = \pounds 2747.25 \times 29 = \pounds 79670.25$$

$$\pounds 156491.25 + \pounds 79670.25 = \pounds 236161.5$$

• All calculations are fully correct.

$$\pounds 3519695 - \pounds 236161.5 = \pounds 3283533.5$$

(✓)
• candidate's yearly total found in (a) was incorrect but has been used correctly.

$$3 + 2 = 5$$

(Total for Question 6 = 8 marks)

Use the box below to show clearly how you get your answer.



[Faint, illegible handwriting is visible within the box, likely bleed-through from the reverse side of the page.]

(Total for Question 7 = 4 marks)

Jeba can cover 0.25 m^2 of the vegetable plot with 1 litre of compost.

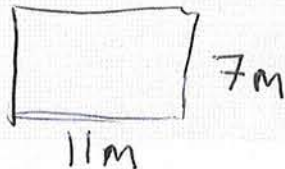
The vegetable plot is a rectangle which measures 11 m by 7 m.

$$1 \text{ litre} = 1000 \text{ cm}^3$$

$$1000 \text{ litres} = 1 \text{ m}^3$$

(c) Can Jeba cover all of the vegetable plot with compost from **one** compost bin? (4)

Use the box below to show clearly how you get your answer.



$$A = 7 \times 11 = 77 \text{ m}^2$$

correct area

$$(2995.2 \text{ m}^3)$$

$$\begin{array}{l} 1 \text{ m}^2 = 4 \text{ litres} \\ \times 77 \quad \downarrow \quad \times 77 \\ 77 \text{ m}^2 \quad 308 \text{ litres} \end{array}$$

number of litres
needed for the plot
correctly worked out.

Incorrect number of
 m^3 from candidate's
volume in (a)

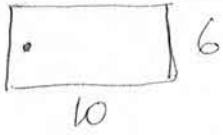
$$1 + 2 = 3$$

Yes

(Total for Question 8 = 9 marks)

Use the box below to show clearly how you get your answer.





$1000 \div 37.5 = 26.6 = 26 \leftarrow$ Number of plants along 10m wall

$600 \div 75 = 8 \updownarrow$ Number of plants along 6m wall

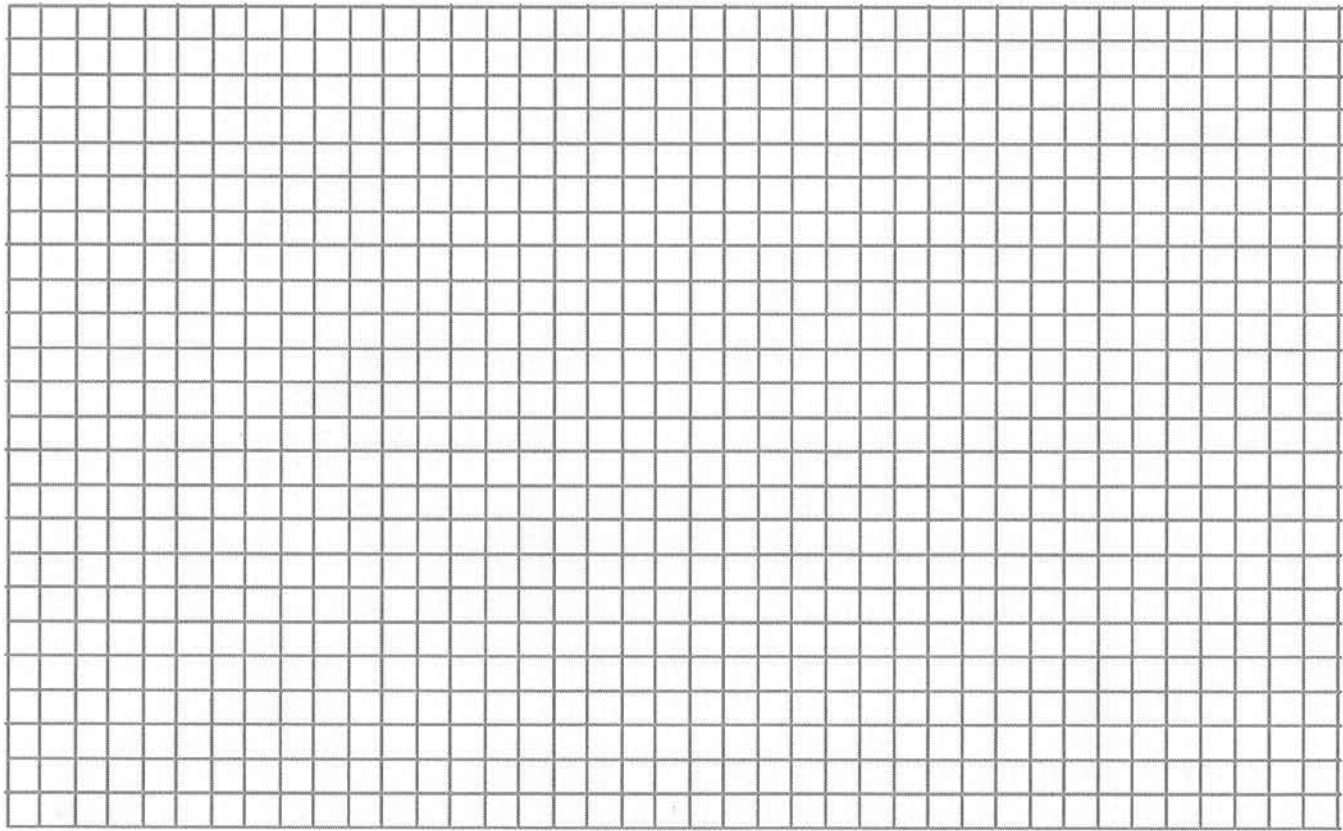
$26 \times 8 = 208 \text{ plants}$

$208 \times 5 \text{ kg} = 1040 \text{ kg}$ correct for 208 plants

correct calculation for total no. of plants.

3

You can use this grid to help you work out your answer.

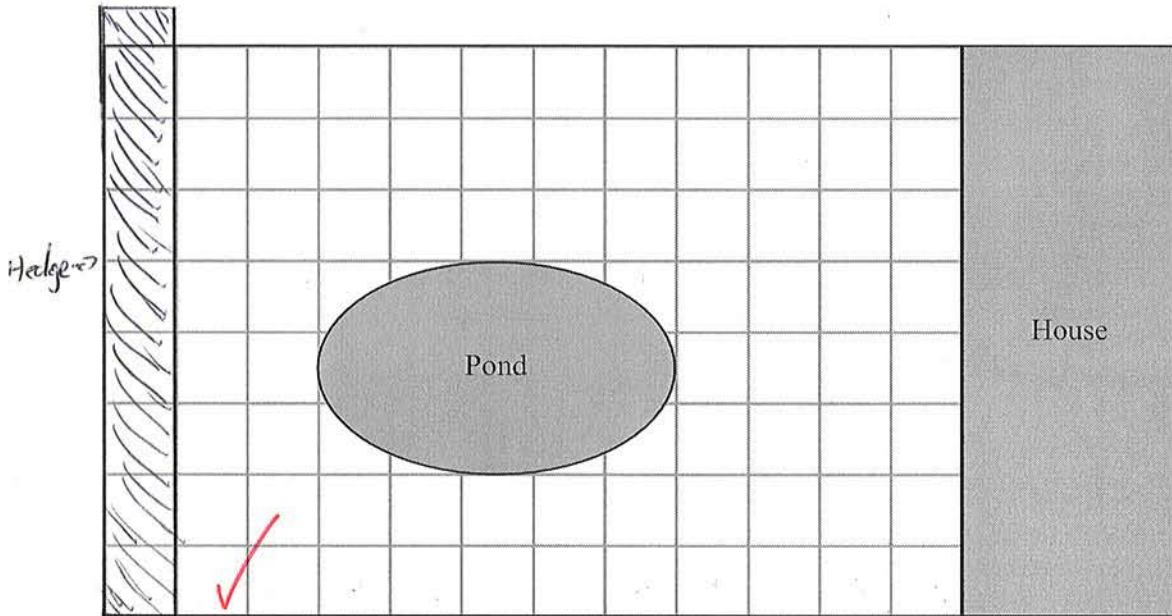


(Total for Question 9 = 3 marks)

TOTAL FOR PAPER = 48 MARKS

Lucy wants to plant a hedge in her garden.

She draws a plan of her garden on a centimetre squared grid.



Key: 1 cm on the plan = 1 m in the garden

The hedge will be 1 m wide and 8 m long.

The hedge will be in the shape of a rectangle.

The hedge will run parallel to the house at the bottom of the garden.

(c) Show the hedge on Lucy's plan. (2)

2

Lucy wants to know the height allowed for her hedge.

(d) What is the height allowed for Lucy's hedge? (2)

(2)

Use the box below to show your calculations.



Distance in metres between house and hedge → divide by 2 → add 1 metre.

~~11 cm~~ $\frac{11 \text{ cm}}{2} = 5.5 \text{ cm} \dots + 1 \text{ metre}$

1 cm = 1 m therefore
 $11 \text{ cm} = 11 \text{ m}$; $5.5 \text{ cm} = 5.5 \text{ m} + 1 \text{ m} = 6.5 \text{ metres}$

• correct value of 11m used
 • correct calculation

2

(Total for Question 2 = 7 marks)