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Sample Assessment Materials

Functional Skills
Mathematics Levels 1 & 2

Clear, accessible papers means
- *more opportunities for success*

Help all your students show what they can do

We carefully design our papers so that they are accessible for every learner. It means that your learners will find it easier to understand what's needed so they get the best results they are capable of.

More readable text

The language level of our text is carefully controlled. Readability tests show that our papers are the clearest. It means your students see straight away how they can use their functional mathematics to solve the problem. There's no confusion – they can respond faster, and with better understanding of what the question is looking for.

Clearer topic focus in each question

There are no surprises and no catches in our questions. We use straightforward contexts which are clearly explained to avoid them causing confusion. It means that candidates can be confident in their use of mathematics and can get full credit where they deserve it.

Better layout for clearer understanding

We illustrate and lay out our questions with great care. We design each one so there is no ambiguity and include helpful diagrams where appropriate. Your students see immediately what the question is about and how to respond.

It all adds up to better results for all

We believe in offering learners the best opportunity to achieve success. We want nothing to stand in the way of that – we want clarity not confusion, with accessibility that supports success.

Contents

This is the second issue of the Sample Assessment Materials mark schemes. Corrections to the published mark schemes have been shaded for clarity.

Level 1

Sample Assessment Materials

Write your name here

Surname	Other names

Edexcel Functional Skills

Centre Number	Candidate Number

Mathematics
Level 1

Sample Assessment Material
Time: 1 hour 30 minutes

Paper Reference
FSM01/01

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

Total Marks

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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- **Where you see this sign you should show clearly how you get your answers as marks will be awarded for your working out.**

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- Show all stages in the calculations.
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- Check your answers if you have time at the end.

Turn over ▶

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Edexcel Functional Skills Qualification in
Mathematics at Levels 1 and 2   Sample Assessment Materials   © Edexcel Limited 2010

5

1 Mid-shire Council is planning a charity meal.
The meal will have a first course, a second course and a third course.
People will choose what they want for each course.

First course: Soup **or** Salad.

Second course: Curry **or** Pasta Bake.

Third course: Cake **or** Ice cream.

The waiting staff need a data collection sheet to record the meal choices of each person.
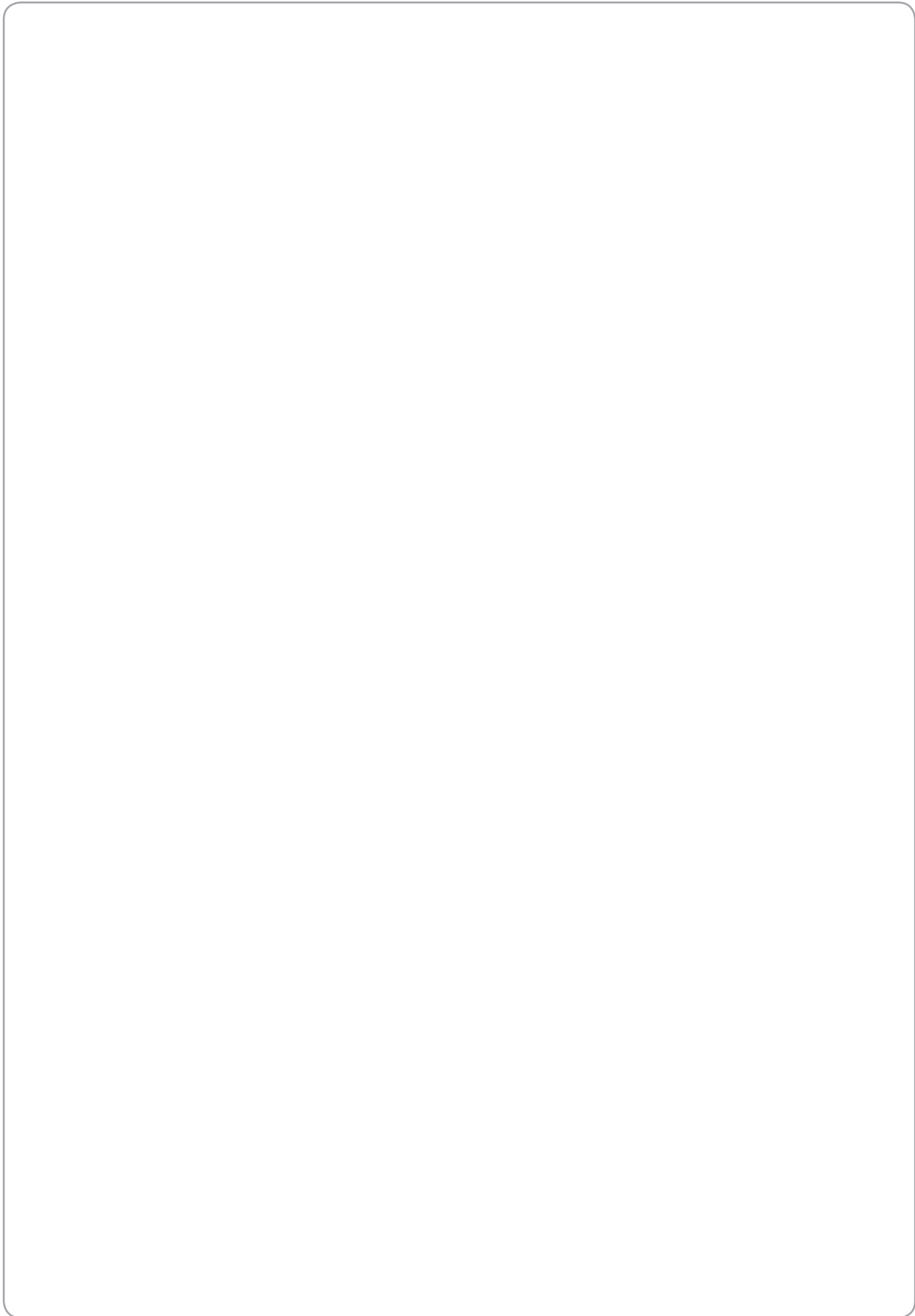A record of the meal choices is needed for each table.
There will be **5** people sitting at each table.

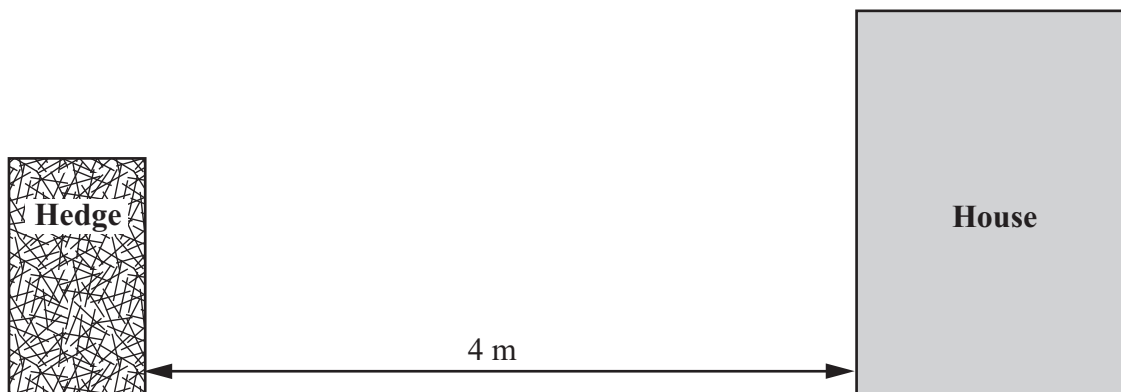Design a data collection sheet to record the meal choices for one table.   **(3)**

Use the box below to show clearly your data collection sheet.

(Total for Question 1 = 3 marks)

2 A man has complained to Mid-shire Council.
He thinks that his neighbour's hedge is too high.

If the hedge is too high, the council can order the neighbour to cut the hedge.

To find the height allowed for a hedge, the council uses the rule below.

| Distance (in metres) between the house and the hedge. | → | Divide by 2 | → | Add 1 metre |
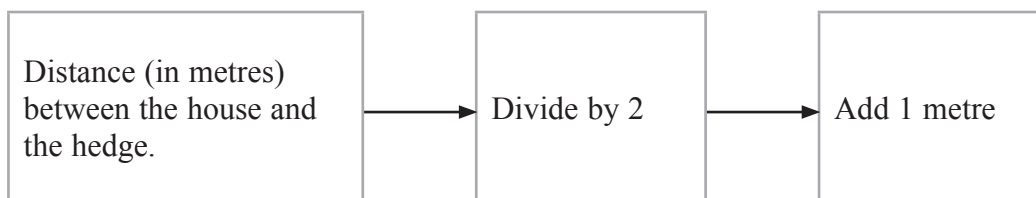
The distance between the house and the hedge is 4 m.

(a) What is the height allowed for the hedge? **(2)**

Use the box below to show your calculations.
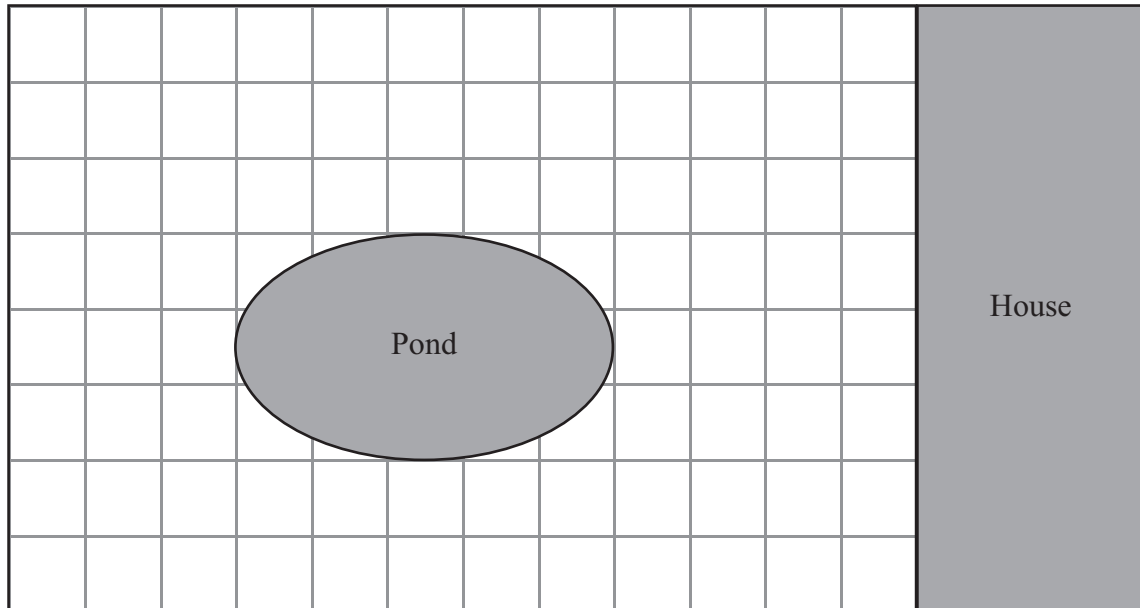
The height of the hedge is 3.5 m.

(b) Should the council order the neighbour to cut the hedge? **(1)**

Use the box below to explain your answer.

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)**

Lucy wants to know the height allowed for her hedge.

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

Use the box below to show your calculations.

(Total for Question 2 = 7 marks)

3 Mid-shire Council spreads grit on the roads when the temperature is low.
The council want to predict how much grit they will need.

The table below shows the predicted number of days at different temperatures for next winter.

Temperature (°C)	Number of days
Above 0°C	44
0 to –5	4
–6 or below	19

Mid-shire Council spreads grit on the roads when the temperature is **0°C or less**.

(a) How many days will the council spread grit on the roads? **(1)**

The council uses a mixture of salt and sand to make the grit.

The mixture is **1** part salt to **4** parts sand.

The council needs 250 tonnes of mixture each day when the temperature is low.

(b) How much salt and how much sand are used to make **250 tonnes** of this mixture? **(2)**

Use the box below to show your calculations and your answer.

The council needs 250 tonnes of mixture for **each day** that grit is spread on the roads.

The council must estimate the cost of the grit needed for next winter.

Salt costs £71.95 per tonne.

Sand costs £12.21 per tonne.

(c) Calculate an estimate for the cost of grit needed for next winter for Mid-shire
Council. **(3)**

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

(Total for Question 3 = 6 marks)

SECTION B: Jobs

Answer all questions in this section.

Write your answers in the spaces provided.

4 Barry interviews people for jobs.

He can interview up to **10** people each day.

A computer company wants Barry to interview **62** people.

(a) What is the least number of days that Barry will need for these interviews? **(2)**

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

(b) Show how you can **check** your answer in the box below. **(1)**

(Total for Question 4 = 3 marks)

5 Barry has been asked to compare the pay for two jobs.

Able Computer Sales	Beta IT Support
Marketing Manager	**Sales Assistant**
Pay: £25 000 per **year**	Pay: £1750 per **month** + bonus of 20% of monthly pay

Which job pays more?	**(4)**

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

(Total for Question 5 = 4 marks)

6 Barry helps people plan which days they work.
He helps Jeba plan her work for three weeks.

Jeba works for two companies, Compulike (C) and Easytype (E).

Jeba is paid £550 for **four** days work at Compulike.

She is paid £110 for **each** day of work at Easytype.

(a) Which company pays Jeba more for her time? **(1)**

Use the box below to explain your answer.

Barry has a choice of two plans for Jeba. The plans are shown below.

Plan 1

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1		C	E	C	E
Week 2			C	E	
Week 3	C			E	

Plan 2

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1		E		C	E
Week 2	C		C	E	E
Week 3		C	E		

Jeba wants to earn as much money as she can.

(b) Which plan should Jeba choose? Explain your choice.
Calculate her total pay for this plan.

(3)

Use the box below to show your answer and calculations.

(Total for Question 6 = 4 marks)

7 Maria is interviewed for a job. She hands in this claim form.

Claim form
Complete all totals.

Reason for claim:	Details:	Total:
Train fare:	**Return ticket**	£ 121.50
Car travel:	30 miles at 27p per mile	£ ....
Travel refreshments:	£4.80 £3.40	£ ....
	Total claim £	

(a) Complete the claim form for Maria.

(3)

Use the box below to show any calculations.

This claim form is out of date.

Car travel is now 29p per mile.

(b) How much **extra** should Maria claim for car travel?

(2)

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

(Total for Question 7 = 5 marks)

Answer all questions in this section.

Write your answers in the spaces provided.

8 A theme park has shows and rides.

The table below gives the start time and the length of show for four shows.

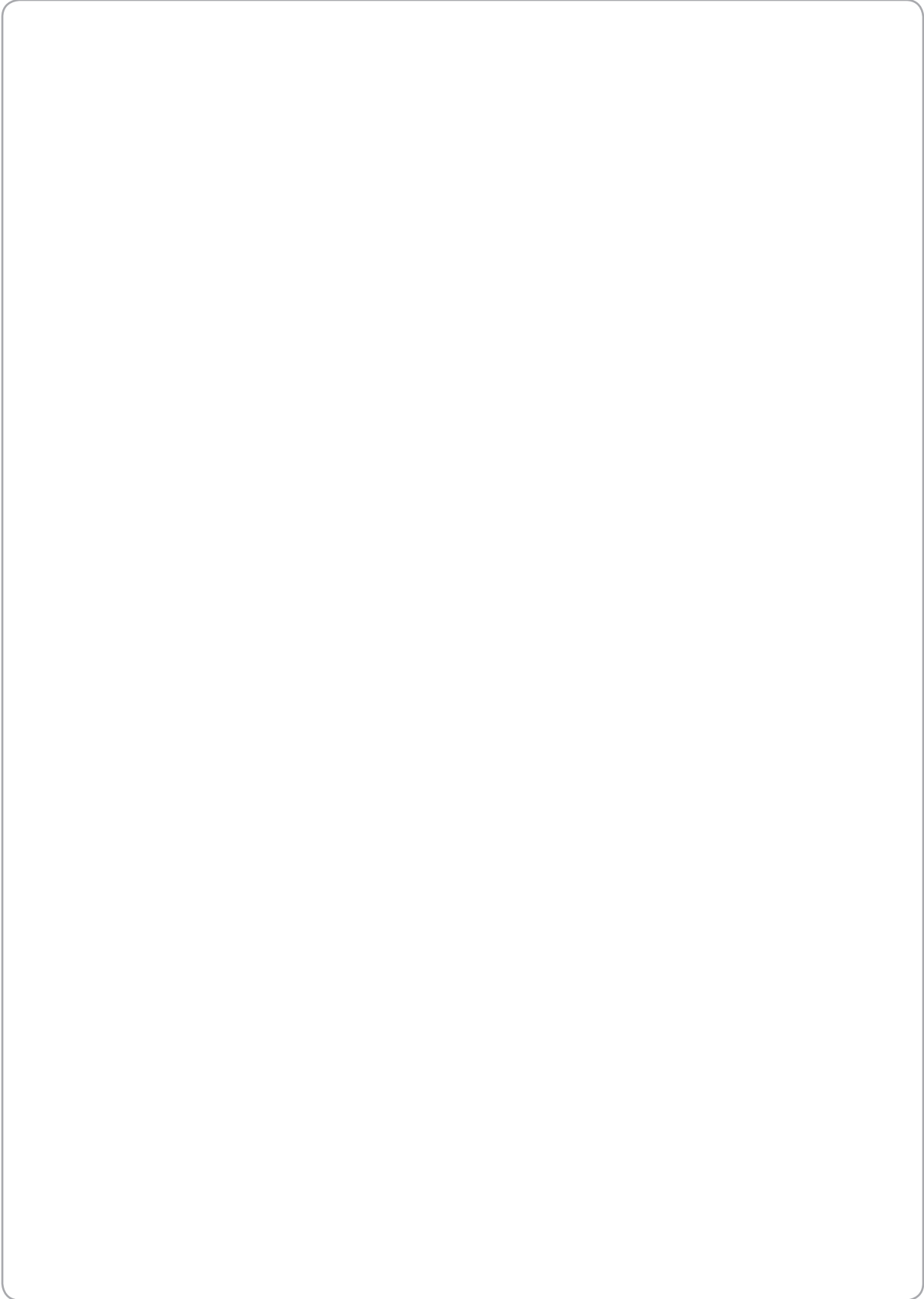| show	start times (pm)				length of show (mins)
High Summer		1.15	3.00		45
Timmy Boo	12.00		2.45	4.15	20
The Sea Lion Show	12.15	1.30	3.00	4.40	35
Warrior Show		1.30	3.00		35

Jan wants to take her nephew to see all four shows.

She wants to see each show from start to finish.
She wants to leave the theme park by 5pm.

Show how Jan and her nephew can see all four shows. **(4)**

Use the box below to show your answer.

(Total for Question 8 = 4 marks)

9 Jan wants to choose a digital TV package.
Jan's three options are shown below.

Package	One-off joining fee	Monthly cost
1	£30.00	£24.99
2	£15.00	£15.00 per month for the first 3 months then £29.35 each month
3	None	£36.00

Compare the cost of the three TV packages for one year.
Which package is best for Jan?

(5)

Use the box below to show your calculations and comparisons.

(Total for Question 9 = 5 marks)

10 Jan wants to reduce her water bill.
She fills in this chart for **one week**.

	Tally
shower	ЖІІ І
toilet	ЖІІ ЖІІ ЖІІ ЖІІ ЖІІ ЖІІ ЖІІ ІІ
washing machine	ІІІІ

Key: ЖІІ = **5**

Jan finds the following information on a website.

	Litres used
shower (per shower)	30
toilet flush (per flush)	10
washing machine (per use)	100

Jan uses 40 litres of water **per day** for other things, such as cooking, washing up, drinking, and cleaning her teeth.

(a) How much water does Jan use in **one week**? (3)

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

Jan wants to know if her water bill would be cheaper if she had a water meter.
She assumes she uses the same amount of water each week.
Jan finds out some information about water charges.

With water meter: Fixed charge per year £22
                      plus £1.10 for every 1000 litres of water used.

Without water meter: Fixed charge of £120 per year

(b) Would Jan's water bill be cheaper if she had a water meter?   **(4)**

Use the space below to show how you get your answer.

(Total for Question 10 = 7 marks)

TOTAL FOR PAPER = 48 MARKS

Level 1 Mark scheme

Question.	Evidence	Mark	Notes
Mid-Shire Council			
Q1	Interprets problem - two features	1 or	Two of: List of menu items, input opportunities (people or courses), headings.
	Three features	2 or	Three of: List of menu items, input opportunities (people or courses), headings.
	All four features	3	All of: List of menu items, input opportunities (people AND courses), headings. (NB: If data collection sheet includes orders for individuals, number of people needs to be correct.)
Total marks for this question		**3**	
Q2a	Distance between hedge and window	1 or	4 m is used
	Allowed hedge height	2	Correct allowed hedge height 3 m seen
Q2b	Action on hedge	1	The hedge should be lowered/cut or equivalent statement.
Q2c	Hedge sketch on plan	1 or	Two of: Correct length, correct width, correct position
		2	All three of: Correct length, correct width, correct position
Q2d	Calculation: ft from their (c)	1 or	Ft from their diagram "11" used in formula OR numerical method shown
		2	Ft from their diagram, appropriate method for height of hedge, 6.5 m
Total marks for question		**7**	

Question	Evidence	Mark	Notes
Mid-Shire Council			
Q3a	Interprets from table	1	23 is seen or implied
Q3b	Finds ratio	1 or	$\dfrac{1}{5}$ or $\dfrac{4}{5}$ oe is seen or implied
	Applies ratio	2	$\dfrac{1}{5} \times 250$ or $\dfrac{4}{5} \times 250$ seen or implied (50, 200 seen)
Q3c	Finds total tonnes	1 or	'50' × 23 or '200' × 23 seen or implied. Ft from their (a) and (b)
	Applies price to their answers	2 or	71.95 × '50' × 23 or 12.21 × '200' × 23
	Price and total processes can be in either order		**OR** 72 × '50' × 23 and 12 × '200' × 23 Ft from their (a) and (b) Accept rounded answers for 71.95 and 12.21
	Decision	3	£138000 or better (£138908.50) **OR** accept £140 000 or better Ft from their (a) and (b)
Total marks for question		**6**	
Q4a	Attempts to find out how many days are needed	1 or	62 ÷ 10 or any method, eg how many lots of 10 in 62, 6 days only, 6.
	Considers rounding	2	7 days
Q4b		1	Appropriate reverse calculation oe
Total marks for question		**3**	

Question	Evidence	Mark	Notes
Jobs			
Q5	Attempts salary in same time period	1 or	Attempts to put both in same time period, both in yearly or monthly period (accept weekly if consistent use of weeks in year or weeks in month) 1750 × 12 OR 24000 ÷ 12 seen or implied
	Includes bonus	2 or	Applies bonus, "21000" ×1.2 oe seen, or 1750 ×1.2
	States salary in same time period	3	Final amounts seen, 24000, 25200 **OR** 2000, 2100
	Includes, salary in same time period And B oe	1	Decision correct for their working, company or role stated
Total marks for question		**4**	
Q6 (a)	Explanation	1	Compares pay in the same time period, eg 1 day or multiple of 4 days
Q6 (b)	Interprets symbolism	1 or	Indication that number of days for each company found, **OR** total for each week seen or implied
	Incorporates pay	2 or	550 + ("5" × 110) seen or implied
	Decision	3	States plan following from their working
Total marks for question		**4**	
Q7a	Completes table Partial calculation seen or implied	1 or	30 × 27 seen or implied or 8.10 in table (or 137.80) or 8.20
		2 or	8.10 and 8.20 seen in table or ft correct table with .7 error or 137.80
		3	All of 8.10, 8.20, and 137.80 seen in table
Q7b	Considers adjustments Complete method shown	1 or	30(29 − 27) or 30 × 29 then recalculation
	States answer	2	Eg: £0.60 (60p) correct money units.
Total marks for question		**5**	

	Question	Evidence	Mark	Notes
Jan				

Q8		A schedule of shows Start times are not sufficient on their own to identify shows	1
			1 or
			
			2 or
			
			3
				At least two shows with no time clashes
				At least two shows, with times, and exit from shows before 5pm
				
				At least three shows, with times, and exit from shows before 5pm
				All four shows (no more), with times, and exit from shows before 5pm and no clashes
				Example: SL: 12.15 – 12.50
				        W 1.30 – 2.05
				        H 3 – 3.45
				        T 4.15 – 4.35

	Total marks for question		**4**	
Q9		Finds correct total per year for one package or approximates Accept comparison in months if adjustments for one-off payments and P2 made	1 or	One of 329.88, 324.15, 432 **OR** Appropriate approximation for two values P1: 30 + (12 × 24.99) **OR** Approximation method: 30 + (25 × 12) = (330) P2: 15 + (15 × 3) + (29.35 × 9) **OR** Approximation method: 15 + (15 × 3) + (30 × 9) = 330 P3: 36 × 12 = (432)
		Finds correct total per year for two packages or approximates	2 or	Two of 329.88, 324.15, 432 **OR** Appropriate approximation for all three values
		Totals per year for all packages	3	All Three: 329.88, 324.15, 432
		Compares two packages	1 or	One comparison made. Incorrect figures allowed.
		P2: Cheapest implies comparison	2	Comparisons made across all three options (correct figures) **OR** approximations with appropriate justifications for within package is cheapest.
	Total marks for question		**5**	

Quest.	Evidence	Mark	Notes
Jan			
Q10a	Interprets tally Two features used Accounts for all uses	1 or 2 or 3	37 or 6 seen or implied. 370 or 160 or 180 or 400 or 150 seen or implied 950 + 280 =1230 weekly
Q10b	Yearly water consumption Their 1230 × [48,52] [59040, 63960] Per 1000 litres Their yearly is allowed Metered water cost 22 + 1.10× [59.04, 63.96] Decision made	1 2 1 or 2	Allow weeks in year from range 48 to 52 Ft from their (a) Per 1000 litres consumption figure Must be a money answer [£86.94, £92.3] A comparison is made or implied. A decision is made.
Total marks for question		**7**	

Level 2

Write your name here

Surname	Other names

Edexcel
Functional Skills

Centre Number	Candidate Number

Mathematics
Level 2

Sample Assessment Material
Time: 1 hour 30 minutes

Paper Reference
FSM02/01

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Total Marks

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Mathematics at Levels 1 and 2   Sample Assessment Materials   © Edexcel Limited 2010

33

Section A: Jobs

Answer all questions in this section.

Write your answers in the spaces provided.

1 Barry interviews people for jobs.
   Each person he interviews gives him a claim form.
   One person gave him the claim form below.

   Barry checked the claim form and found some errors.
   He put a ring round all the errors on the form.

Claim form		
Complete all sections.		
Reason for claim	**Details**	**Total**
Train fare	**Return ticket**	£ 122.50
Car travel	28 miles at (27p) per mile	(£ 8.16)
Travel refreshments	£4.80 £3.40	(£ 7.20)
	Total claim	(£ 137.36)

The cost of car travel is now **29p** per mile.

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

(4)

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

(Total for Question 1 = 4 marks)

2 Barry has to organise interviews on one day.

5 people are going to be interviewed for a job.
The 5 people are Ali, Ben, Charlie, Dan and Erica.

Each person will have **3** separate interviews.
Each person will be interviewed once in each of 3 rooms.

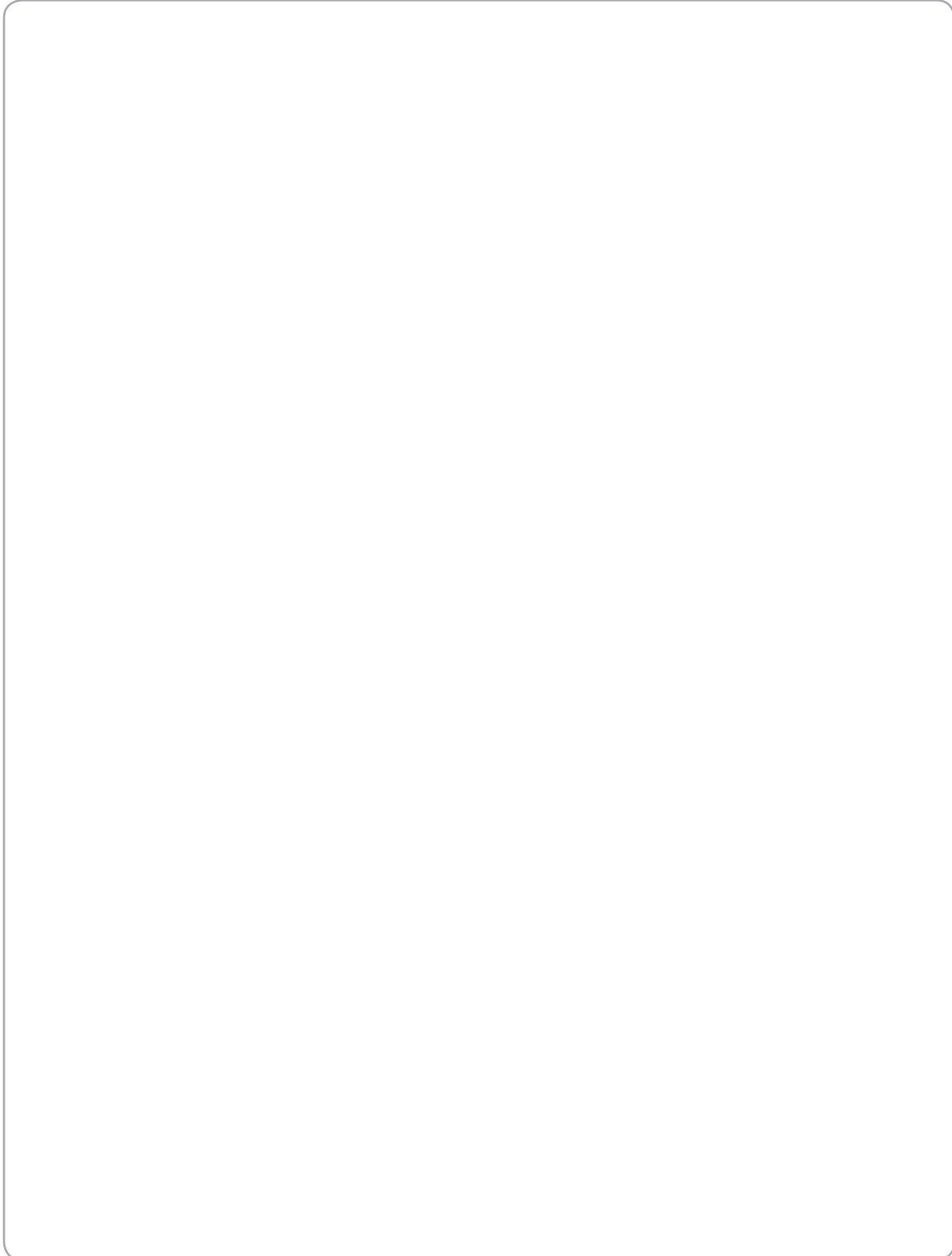Anyone **not** being interviewed will wait in the waiting room.

• Each interview will last **15** minutes.

• There are **5** minutes between each interview.

• The first interviews will start at **9.00 am**.

• All rooms can be used for interviews at the same time.

Room 1	Room 2	Room 3	Waiting room

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.

(Total for Question 2 = 4 marks)

3 Barry has been asked to compare the pay for four similar jobs advertised in a news paper.

Able Computer Sales	Beta IT Support
Sales Consultant	**_Sales Assistant_**
Pay: £23,000 per year	Full time: 30 hours per week Pay: £15 per hour
Compu Systems	Digital Hardware
Sales Agent	**_Sales Adviser_**
Pay per month will be £1800, plus commission of 1% of monthly sales. Average monthly sales are £22,000.	Salary of £20,000 per year + team bonus of 20% of salary.

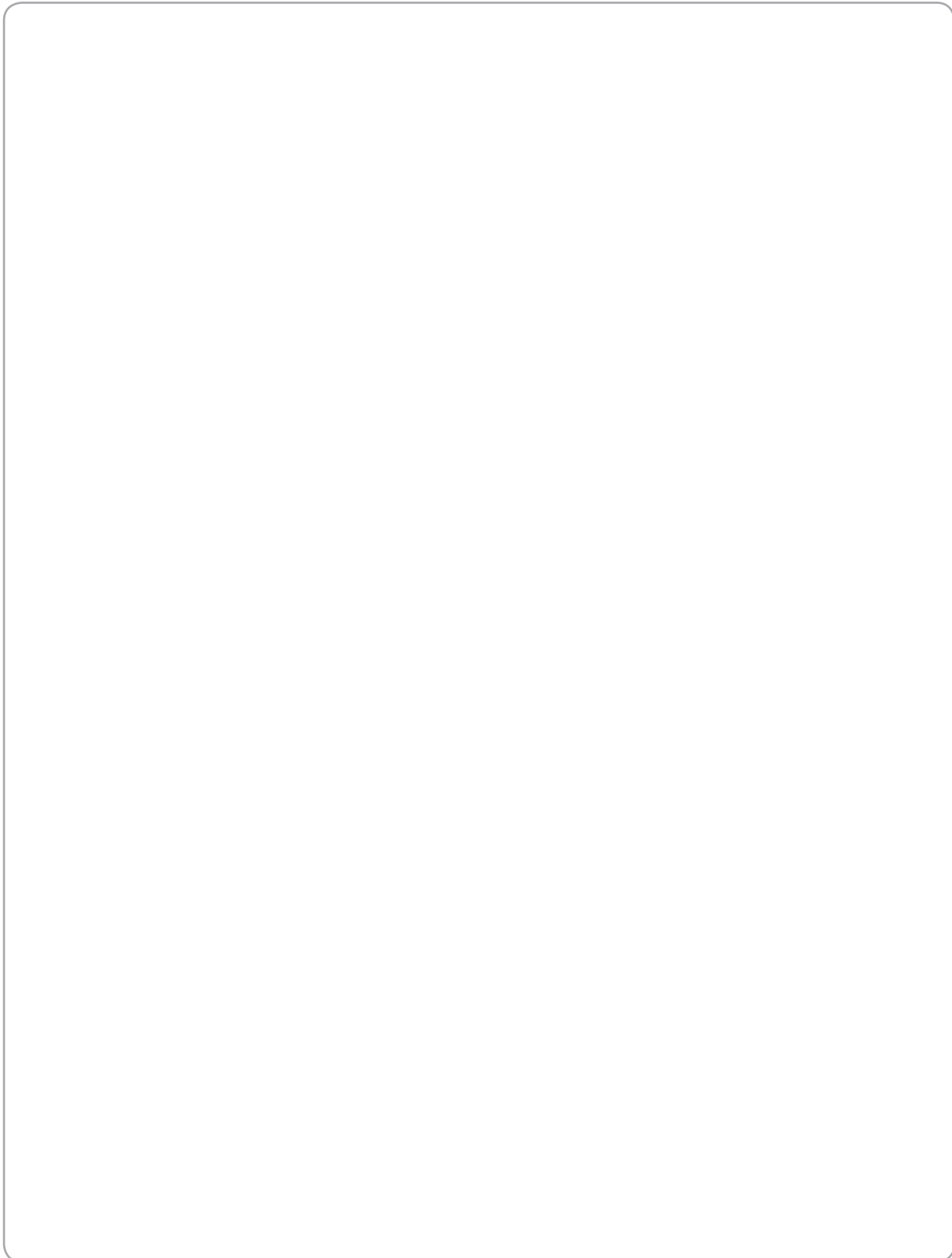(a) How much does Beta IT Support pay per year? **(2)**

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

(b) Which job pays the most money? **(6)**

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

(Total for Question 3 = 8 marks)

Section B: Mid-Shire Council

Answer all questions in this section.

Write your answers in the spaces provided.

4 A man has complained to Mid-shire Council.
He says that a neighbour's hedge is causing loss of light to his garden.

When the hedge is too high, the council can order the neighbour to cut the hedge.
The council uses this formula to work out the height allowed for a hedge.

> **H = DA ÷ L**
>
> H = The height of hedge allowed (m)
> D = Direction factor
> A = The area of the garden affected by the hedge (m^2)
> L = The length of the hedge (m)

The direction factor of the man's garden is 0.55
The area of the man's garden affected by the hedge is 40.5 m^2.
The length of the hedge is 9 m.

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.

(Total for Question 4 = 3 marks)

5 Mid-shire Council runs a service which delivers meals to elderly people.

The council uses five vans to deliver meals.

The vans are the same make and model.

The table below gives information about the value and ages of the five vans.

New	1 year old	2 years old	3 years old	4 years old	5 years old
£16 000	£ 11 500	£9800	£8500	£7400	£6500

The council want to be able to estimate the value of a van using its age.

(a) Draw a graph the council could use to estimate the value of a van. **(3)**
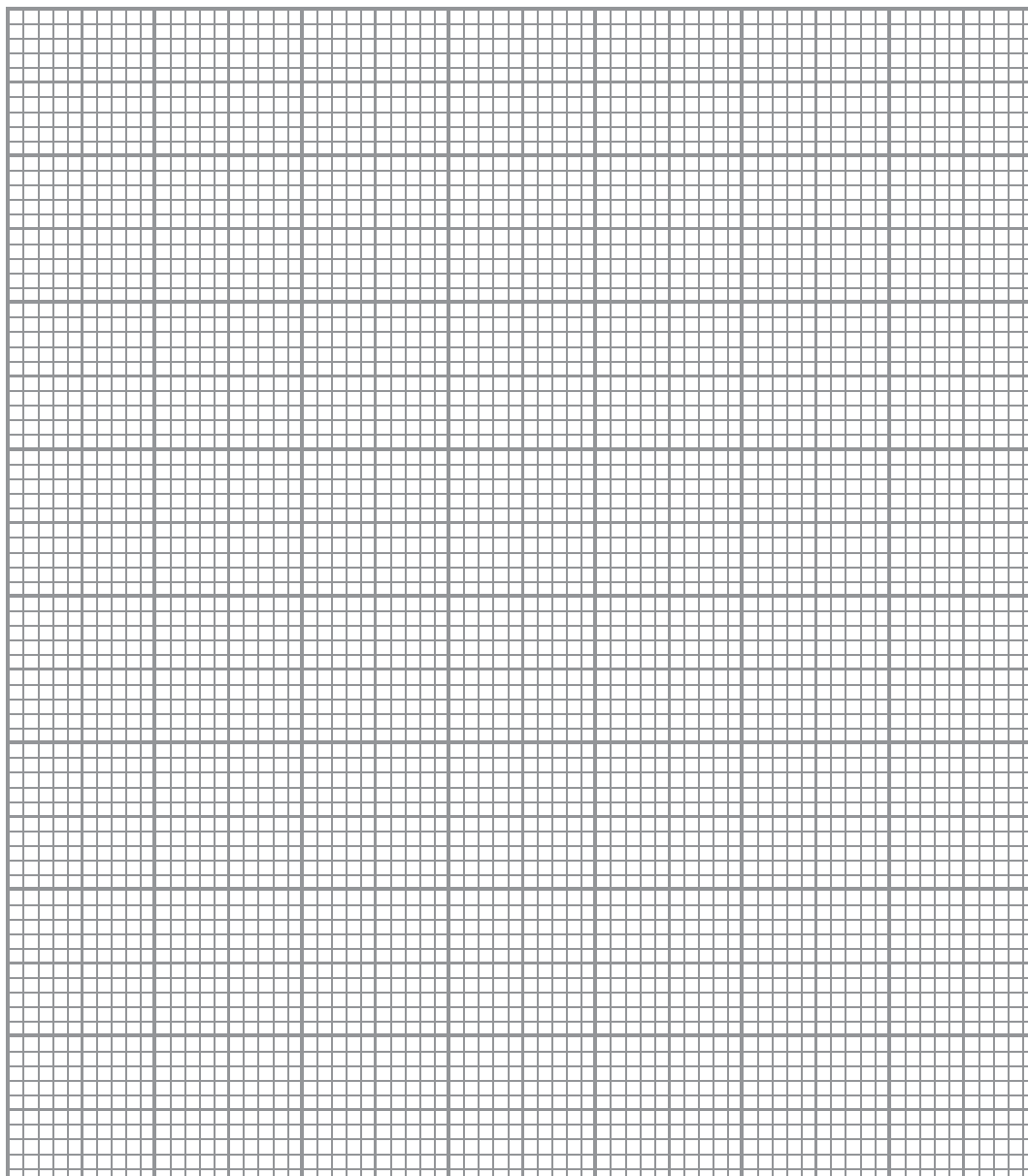
The council wants to buy another van of the same make and model to deliver meals.

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.

(Total for Question 5 = 5 marks)

6 The table below shows information about the grit mixture Mid-shire Council used on icy roads last year.

> **Last year's mixture**
>
> Grit mixture: salt to sand in the ratio of 1:2 by weight.
>
> The council used **300** tonnes of this grit mixture **each day** when the roads were icy.
>
> The costs of materials: Salt: £71.95 per tonne.
>   Sand: £12.21 per tonne.

(a) What is the cost of last year's mixture for each day it was used? **(2)**

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

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.

(Total for Question 6 = 8 marks)

Answer all questions in this section.

Write your answers in the spaces provided.

7 Jeba grows plants.
She uses liquid plant food.

> **Concentrated Liquid Plant Food**
>
> Bottle contains: 1500 ml plant food
>
> *Instructions to feed each plant:*
> Mix 15 ml of plant food with 1 litre of water

Jeba uses 15 ml of plant food with 1 litre of water to feed **1** plant.

She has 9 plants growing in the greenhouse.
The plants in the greenhouse need feeding with plant food **once a week**.

She has 11 plants growing in the vegetable plot.
The plants in the vegetable plot need feeding with plant food **twice a week**.

> How many bottles of plant food does Jeba use in 12 weeks?   (4)

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

(Total for Question 7 = 4 marks)

8 Jeba uses food waste to make compost.

Her compost bin is in the shape of a cuboid.
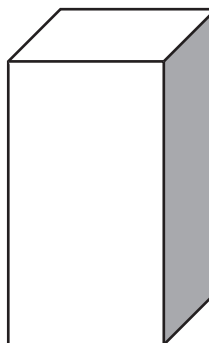The compost bin has length 65 cm, width 64 cm
and height 120 cm.

Diagram **NOT**
accurately drawn

Volume of a cuboid = length × width × height

Jeba fills the compost bin completely with food waste.

The food waste becomes compost and reduces in volume by 40%.

(a) What is the volume of the compost **after** it has been reduced by 40%? **(3)**

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

(b) Show how you can check your answer to (a). Write your check in the box below. **(2)**

Jeba can cover 0.25 m² of the vegetable plot with 1 litre of compost.

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

1 litre = 1000 cm³

1000 litres = 1m³

(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.

(Total for Question 8 = 9 marks)

9 Jeba wants to grow potatoes.

Here is some information Jeba finds out about potatoes.

Type of potato	Sowing distances	Total weight of potatoes from each plant in one year
King Edward	• sow 20 cm deep • 37.5 cm between each seed potato in a row • rows 75 cm apart	5 kg

Jeba will plant potatoes in a rectangular plot 6 m wide by 10 m long.
She will use all of the plot for growing potatoes.

Jeba will grow potatoes to sell.
She wants to know the weight of potatoes she can grow in one year.

What weight of potatoes can Jeba grow in one year?   **(3)**

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

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

(Total for Question 9 = 3 marks)

TOTAL FOR PAPER = 48 MARKS

Level 2 mark scheme

Question	Evidence	Mark	Notes
Jobs			
Q1	Identifies correct calculations	1 or 2	28 × 29 or 4.80 + 3.40 seen 8.12, 8.20 seen
	Complete method shown	1 or	Attempt to find correct total: "8.12" + "8.20" + 122.50
	States answer	2	138.82
Total marks for question		**4**	
Q2	Considers criteria for at least one person Assume 5 min if intervals are 20 min	1 or	Two of : 9.00 am start: (15 min interval: 5min between each interview):No overlap in rooms
	Intervals: need to see at least 5 consecutive times	2	All of : 9.00 am start: (15 min interval: 5 min between each interview) No overlap in rooms.
	Considers presentation Coordinates two of: time, people, rooms.	1 or	All times given for at least three people or rooms
	Coordinates features time, people, rooms	2	Times and rooms given for all people or people and rooms (correct)
Total marks for question		**4**	
Q3a	Attempt to convert B Correct conversion using 52 weeks OR 48 weeks	1 or 2	30 × 15 seen or implied 21600 OR 23400 seen

Question	Evidence	Mark	Notes
Jobs			
Q3b	C and D salary calcs Monthly or yearly or weekly acceptable Accept use of 52 or 48 weeks in a year, if consistently used Accept use of 4 weeks in a month, if consistently used	1 or	Correct method to convert C **OR** D for comparison: C yearly: 1800 + (0.01(oe) × 22000) (1800 + "220") × 12 (oe) C monthly 1800 + (0.01(oe) × 22000) C weekly (assumes 4 weeks in a month) 1800 ÷ 4 + (22000 × 0.01(oe)) ÷ 4 C weekly (conversion from year) 1800 + (0.01(oe) × 22000) (1800 + "220") × 12 (oe) ÷ 52 **OR** D yearly: 20000 × 1.2 (oe) D monthly: 20000 × 1.2 (oe) ÷ 12 D weekly 20000 × 1.2 (oe) ÷ 52 OR 20000 × 1.2 (oe) ÷ 48
		2 or	Correct method to convert C **AND** D for comparison
	£24240/ 24000 per year £2020/£2000 per month £505/£466.15/ per week (52 wks) £547.08/£500 per week (48 wks)	3 or	Correct answer for C OR D Time periods can be different but accuracy required
	£24240/ 24000 per year £2020/£2000 per month £505/£466.15/ per week (52 wks) £547.08/£500 per week (48 wks)	4	Correct answer for C AND D Time periods can be different but accuracy required
	Comparison of all in same time period	1 or	A, B, C, D in same time period in order to compare
	Decision (C)	2	Correct decision (ft) from their working and their (a). Compares jobs in the same time period. Decision stated clearly comparing jobs in same time period.
	Total marks for question	**8**	

Question	Evidence	Mark	Notes
Mid-shire Council			
Q4	Uses figures correct substitution	1 or 2	$0.55 \times 40.5 \div 9$ 2.475
	Makes decision	1	Makes a correct decision based on the information presented.
	Total marks for question	**3**	
Q5a	Appropriate graph would be scatter or line graph Accept bar graph	1 or 2 or 3	Attempts to draw a graph on which points can be plotted (minimum is labelled axes, linear scale) Attempts to draw a graph on which 5 points are plotted Attempts to draw a graph on which 5 points are plotted, and joined with a curve or a polygon
	Tolerance of 2 mm when plotting		
Q5b	Selects method to use Interprets information	1 or 2	Reads from their graph or uses table using linear midpoint Arrives at an appropriate estimate: ft from their graph if not. Answer in the range 8900 - 9200
	Total marks for question	**5**	

Question	Evidence	Mark	Notes
Mid-shire Council			
Q6a	Attempts to find either amount currently	1 or	300 ÷ 3 × 71.95 OR 300÷ 3 × 2× 12.21 seen or implied OR 71.95 + 12.21 + 12.21 × 100 oe
		2	£9637 seen or implied
Q6b	Attempts to find new cost per day OR find amount of salt in comparison to sand	1 or	(300) ÷ 4 × 71.95 OR (300) ÷ 4 × 3 × 12.21 seen or implied OR 71.95 + 3 × 12.21 × 75 oe
		2	Correct cost of either salt OR sand seen for 1 day 5396.25, 2747.25
		3	Correct cost of either salt AND sand seen for 1 day or total cost for 1 day (8143.5, 5396.25, 2747.25
	Attempt to find cost for 29 days	1 or	Their (a) × 29 OR '8143.5'× 29 seen or implied OR Difference between daily rate found (1493.50)
	Cost for 29 days	2 or	Their (a) × 29 AND '8143.5'× 29 seen or implied OR their Difference between daily rate × 29 seen or implied
	Correct total found	3	Correct difference found (43311.50)
Total marks for question		**8**	

Question	Evidence	Mark	Notes
Garden			
Q7	Number of feeds in 1 bottle	1	1500 ÷ 15 oe, 100 feeds per bottle seen, seen or implied
	Number of feeds per set of plants	1 or	12 × 9 OR 12 × 11 × 2 seen or implied OR 9 + (11 × 2) seen or implied OR their total feeds per week × 12
		2 or	12 × 9 AND 12 × 11 × 2 seen or implied OR 9 + (11 × 2) × 12 OR 372 seen
	Total number of bottles	1	4 bottles stated or ft from their total number of feeds ÷ 100
	Total marks for question	**4**	
Q8a	Attempt to find volume	1 or	65 × 64 × 120 seen or implied
	Attempt to reduce volume	2 or	"65 × 64 × 120" × 0.6 (oe) OR "499200" – "65 × 64 × 120" × 0.4
	Correct reduced volume + unit	3	Answer 299520 cm^2 or 29.952 m^2
Q8b	Checking procedure selected	1 or	Attempt to estimate OR attempt to reverse calculation or appropriate other method
		2	Correct estimation OR reverse calculation or appropriate other method
Q8c	Area of plot	1	11 × 7 seen or implied
	Ft from their (a) throughout Finds number of litres of compost	1 or	Their (a) converted to litres 299520 ÷ 1000 (cm) or 0.29952 × 1000 seen or implied
	Finds number of litres needed for plot	2 or	"77" ÷ 0.25 (oe) or "77" × 4
	Correct decision	3	Correct decision supported by their working
	Total marks for question	**9**	

Question	Evidence	Mark	Notes
Garden			
Q9	Answer may be shown diagrammatically or use calculations Number of plants attempted May leave gap at ends of plot Allow gap between 30 – 50 cm Allow rows to run along 6 m side or 10 m side of plot	1 or	Finds number of plants in row **OR** number of rows **(No gap, along 6 m side)** $600 \div 37.5$, 16 seen or implied (oe) $1000 \div 75$, 13 seen or implied (oe) **(Gap, along 6 m side)** **"600"** $\div 37.5$, seen or implied (oe). Allow answers [13, 15] "1000" $\div 75$, seen or implied (oe). Allow answers [12, 13] **(No gap, along 10 m side)** $1000 \div 37.5$, 26 seen or implied (oe) $600 \div 75$, 8 seen or implied (oe) **Gap, along 10 m side)** "1000" $\div 37.5$, seen or implied (oe). Allow answers [24, 25] $600 \div 75$, seen or implied (oe) Allow answers [5, 6]
	Ft from their method	2 or	Their plants in a row × number of rows (ft from 1st mark) Allow answers [120- 208] OR Uses area method $700 \times 1000 \div (37.5 \times 75)$,
	Ft from their method	3	Their number of plants × 5
Total marks for question		**3**	