

Paper Code: Practice Paper 2

Level 2

Highfield Functional Skills Qualification in Mathematics at Level 2

Information for registered Centres

The seal on this examination paper must only be broken by the learner at the time of the examination.

Under no circumstances should a learner use an unsealed examination paper.

Completed examination papers must be returned to Highfield Qualifications Examination Department.

Information for learners

Only remove the examination paper from the sealed envelope when instructed to do so.

Under no circumstances should you use an unsealed examination paper.

Complete **ALL** questions. Use **BLACK** or **BLUE** ink. You are **NOT** allowed any assistance to complete the answers.

You **MAY** however use a **CALCULATOR**. Marks are awarded for **SHOWING** your **WORKING OUT**. Use a **RULER, PENCIL** and **ERASER** when drawing diagrams and charts.

The duration of this examination is **2 HOURS**. **SIGN** the declaration before leaving.

Complete the following

First Name <i>(in full)</i>	<input type="text"/>															Middle initial <input type="text"/>				
Last Name	<input type="text"/>																			
Date of Birth <i>(8 digits)</i>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>												
	D	D	M	M	Y	Y	Y	Y												
Highfield Learner ID	<input type="text"/>																			
Approved Centre Number <i>(5 digits)</i>	<input type="text"/>																			
Is this a resit examination?	YES <input type="checkbox"/>	NO <input type="checkbox"/>																		
Examination Date <i>(8 digits)</i>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>												
	D	D	M	M	Y	Y	Y	Y												
Examination Start Time <i>(24 hour clock)</i>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Examination Finish Time <i>(24 hour clock)</i>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>											
	H	H	M	M		H	H	M	M											
Security Code	<input type="text"/>																			
Nominated Tutor Number <i>(5 digits)</i>	<input type="text"/>																			

Learner declaration

I confirm:

- I removed the examination paper from the sealed envelope.
- I received no help in answering the questions in this examination paper.
- I am the person stated above on this form.
- I will not discuss the content of the examination with anyone else.

Learner signature:

.....

Mathematics

Question 1

You work at Highfield Hospitality as a catering assistant.

- 1a** Your manager has asked you to work out a quote for a customer who wants to hire a meeting room with catering. Your manager sends you this information:

MEMO

Highfield Business Solutions Quote Request

Date	Room requirements (times)	Catering requirements (number of people)
6 June	09:30 - 14:30	20
7 June	09:30 - 17:30	10
9 June	09:00 - 12:00	Not required
10 June	09:45 - 15:45	15

Room hire: £12.00 per hour

Catering prices:

Small buffet £55.00 (up to 10 people)

Medium buffet £95.00 (11 to 20 people)

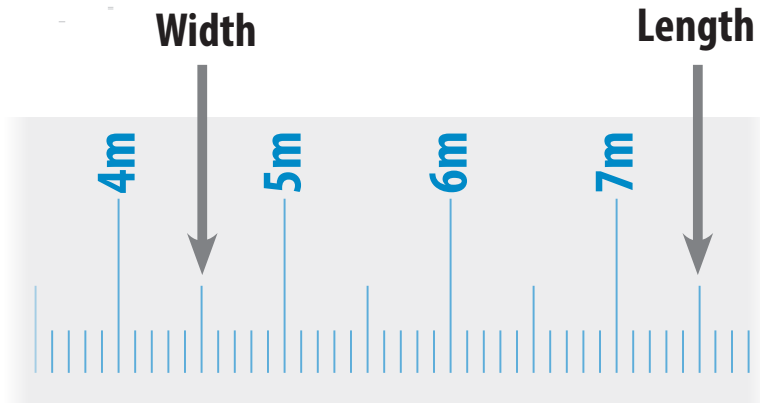
Thanks!
Jayne

What would be the total cost of hiring the room with catering?

(4 marks)

1b You have been asked to measure the staff kitchen as a new floor is going to be laid.

The kitchen is a rectangle. You take these measurements:



What is the area of the kitchen? Give your answer in metres (m^2).

Show your working out and write the answer in the box below.

(2 marks)

1c

Show how you could check your answer to question 1b.

Show your working out in the box below.

(1 mark)

1d You are arranging tables in the dining hall for a function.

You need to have:

- twice as many rectangular tables as square tables;
- at least 3 round tables;
- 3 large rectangular tables in a line for the buffet;
- a minimum of 20 tables in total.

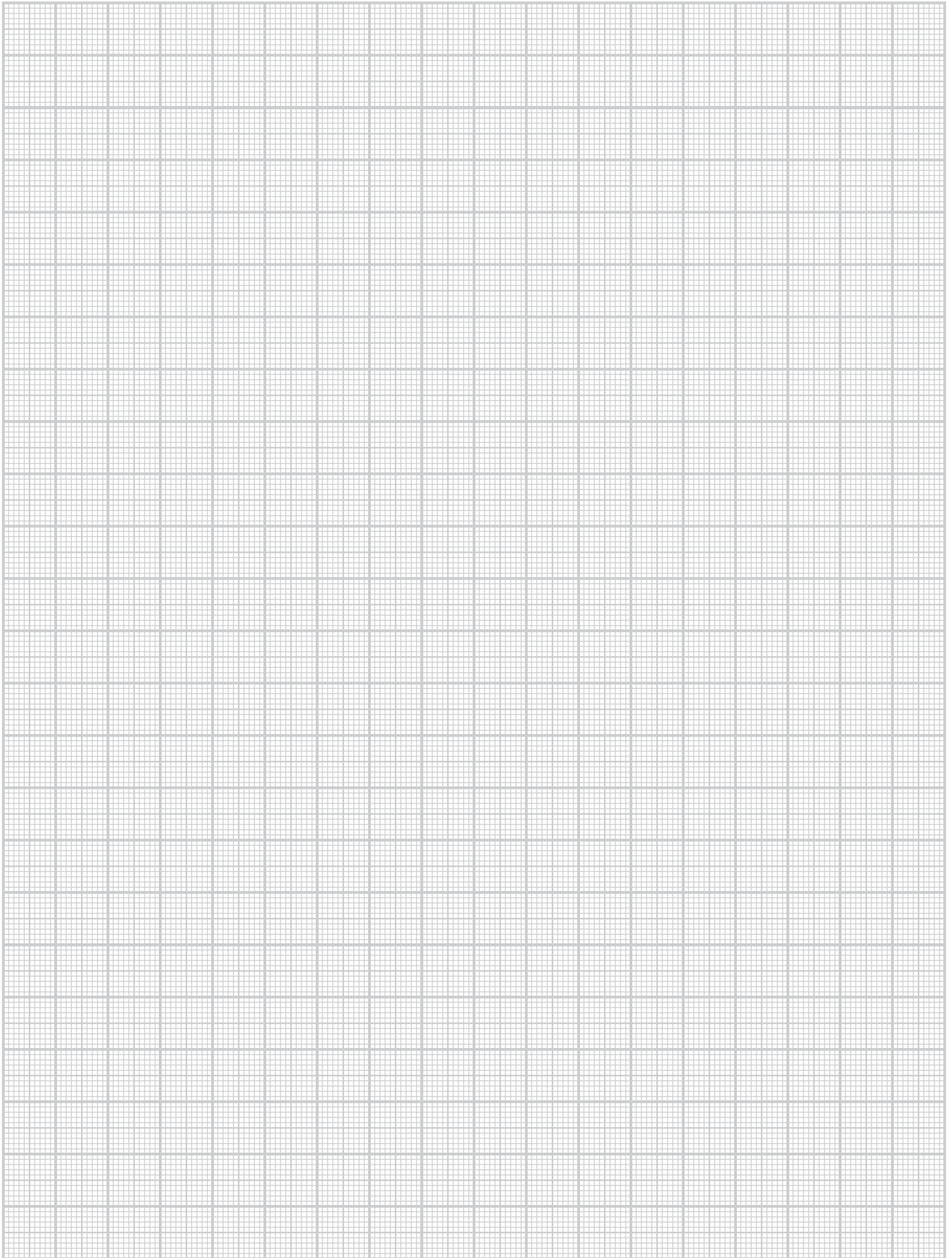
Design a floor plan for the dining hall.

Draw your floor plan on the squared paper on the next page.

You may use the box below to plan your answer.

(5 marks)





1e

Highfield Hospitality offers different rates of pay depending on the qualifications and experience of its staff.

Pay Rates		HIGHFIELD Hospitality
Job Role	Rate of pay	Number of employees at Highfield Hospitality
Chef (minimum level 3)	£8.50	2
Sous chef	£7.50	3
Kitchen porter	£6.80	2
Catering assistant (apprentice)	£3.90	5

Each employee is contracted for 40 hours per week and paid weekly.
This week Highfield Hospitality has provided catering for 250 people at a cost of £18 per person.

How much profit did Highfield Hospitality make this week?

Show your working out and write the answer in the box below.

(7 marks)

1f

This poster is displayed in the kitchen:



Safe Food STORAGE



Category	Description	Safe Storage Duration	
		Fridge (40°F or below)	Freezer (0°F or below)
Cooked meats	Opened package or deli-style	2-5 days	1 to 2 months
	Unopened package	2 weeks	1 to 2 months
Bacon and sausages	Bacon	7 days	1 month
	Sausage - raw from chicken, turkey or pork	1 to 2 days	1 to 2 months
Fresh fruit	Apple, pears and oranges	2 weeks	Not recommended
Pastries	Short-crust, puff and filo	2-3 days	1 to 2 months
Milk	Semi-skimmed, full-fat and skimmed	7 days	Not recommended

Highfield Hospitality took delivery of the following items on Monday and stored them in the fridge:

- cooked ham (deli-style)
- pork sausages
- fresh fruit
- filo pastry
- semi-skimmed milk

Today is Thursday.

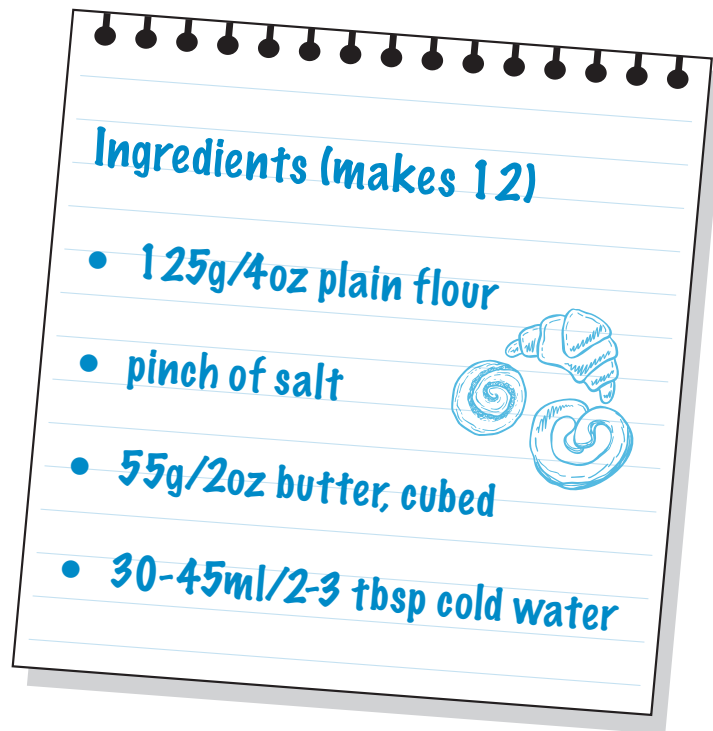
According to the poster, which of these items will not be safe to use?

Show your working out and write the answer in the box below.

(2 marks)

1g

You are helping the chef to make a batch of pastries. You use this recipe:



You need to make 150 pastries and there is a 2kg bag of flour in the cupboard.

Do you have enough flour to make all of the pastries? Explain your answer.
Show your working out and write the answer in the box below.

(4 marks)

Question 2

You are going to the new theme park Highfield Towers.

2a You want to buy tickets for your family, which consists of 5 adults and 4 children.

You find the following ticket prices online:

Ticket type	Price if booked more than 10 days in advance	Price if booked fewer than 10 days in advance	Gate price
Adult	£20	£25	£30
Children	£16	£19	£27
Senior	£15	£19	£22
Family of 4 ticket (max 2 adults)	£65	£80	£100
Family of 8 ticket (max 4 adults)	£120	£150	£180

Today is 10 August and you plan to visit the theme park on 22 August. By using the code word 'HIGHFIELD' at the online checkout you get an additional £2 off per person (excluding family tickets).

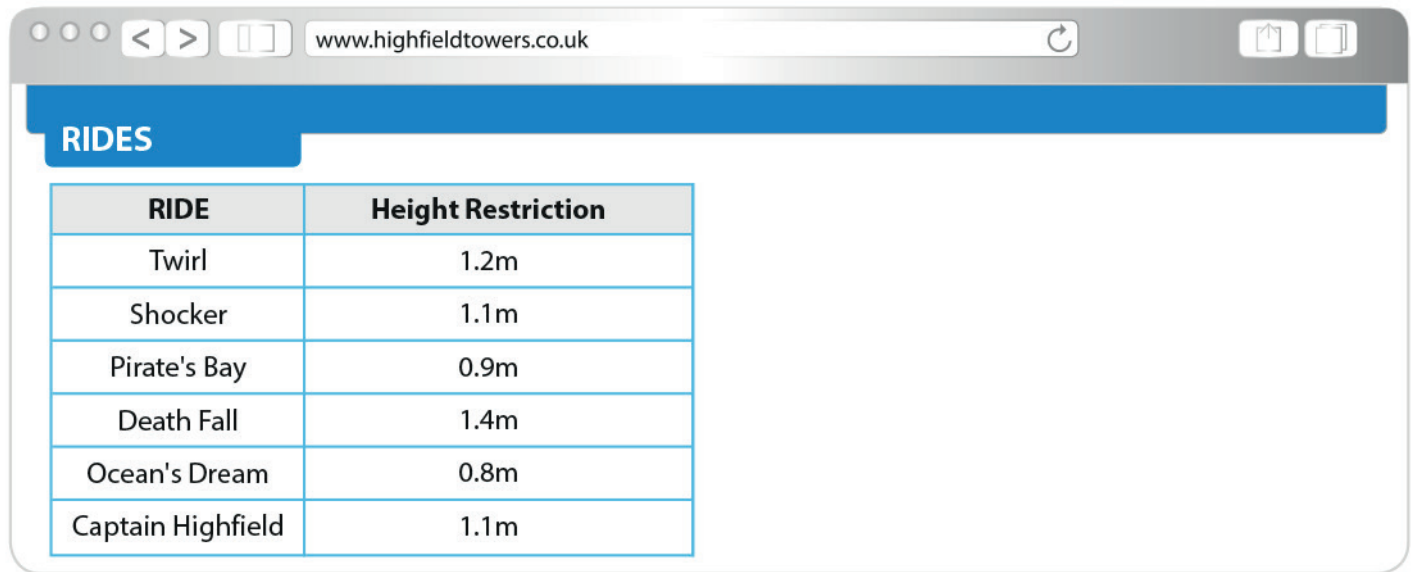
What is the cheapest price you will have to pay for your family to go to the theme park?

Show your working out and write your comments in the box below.

(4 marks)

2b

The rides at Highfield Towers have height restrictions:



RIDE	Height Restriction
Twirl	1.2m
Shocker	1.1m
Pirate's Bay	0.9m
Death Fall	1.4m
Ocean's Dream	0.8m
Captain Highfield	1.1m

You make a note of the heights of the children in your family group:

<input type="radio"/>	Name	Height
	Sebastian	145cm
	Isabella	131cm
	Harry	95cm
<input type="radio"/>	Ava	111cm

Construct a table to show the maximum number of rides each child can go on.

Show your working out and write the answer in the box below.

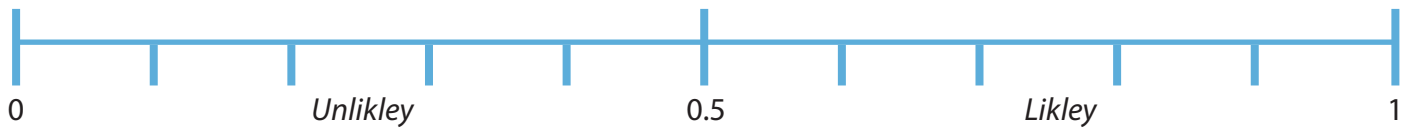
(4 marks)

2c

You buy a packet of sweets for the journey to Highfield Towers. The packet contains 12 red sweets and 12 yellow sweets. You choose a sweet at random from the packet.

What is the probability that the sweet you have chosen will be red?

Mark your answer on the probability scale below.

(1 mark)

2d You are stuck in traffic on the way to Highfield Towers.

You hear on the radio that the average travelling speed is now 50mph. You still have 125 miles to travel and it is now 08:15.

You use this formula:

$$T = \frac{d}{s}$$

where T= time, d = distance and s = speed

Will you arrive before the theme park opens at 10:00? Explain your answer.

Show your working out and write the answer in the box below.

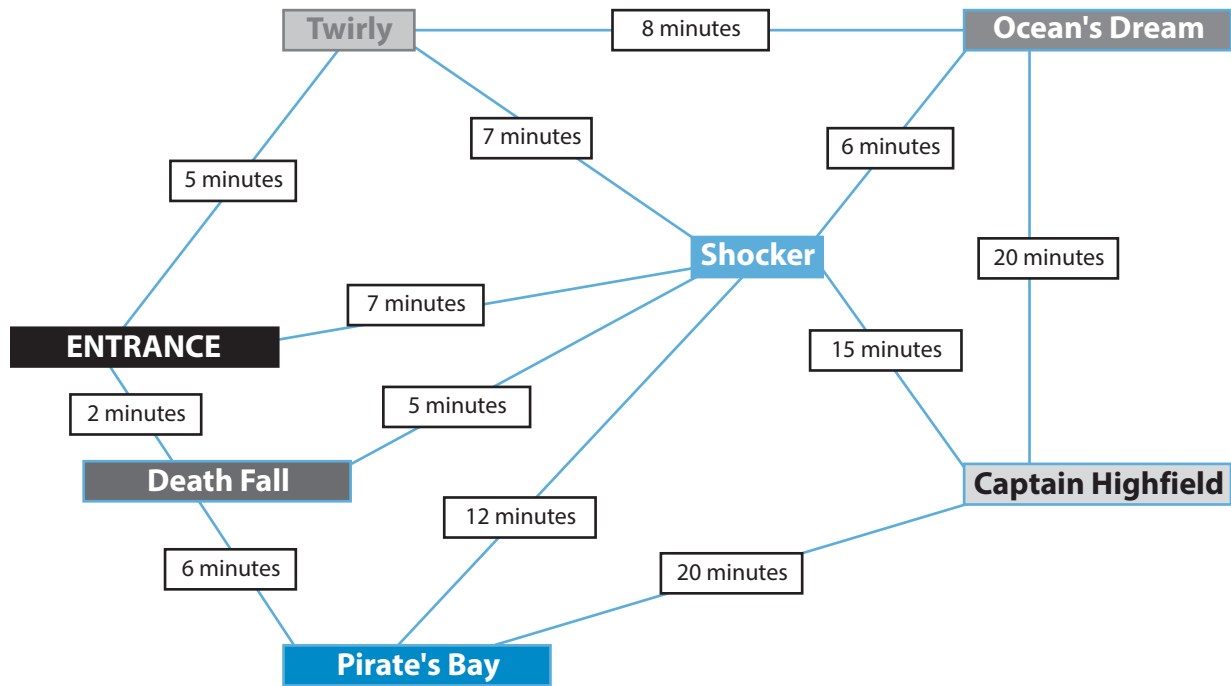
*(5 marks)***2e**

Show how you could check your answer to question 2d.

Show your working out in the box below.

(1 mark)

2f This is a map of Highfield Towers and the average time it takes to walk between each ride.



You arrive at the entrance of the park at 11:00am. You arrange to meet your family back at the entrance after you have been on all of the rides once. You walk between each ride and you allow 20 minutes (including queuing time) for each ride.

Using the **quickest route around the park**, what is the earliest time you will be back at the entrance to meet your family? Show your working out and write the answer in the box below. (5 marks)

2g

Highfield Towers received complaints about the park being too busy during August. This table shows the number of visitors:

VISITOR NUMBERS		HIGHFIELD TOWERS					
Month: August							
Week Number	DAY						
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1						4,876	4,123
2	1,200	1,456	1,786	2,057	3,678	5,064	4,978
3	1,987	1,476	2,086	2,946	3,856	5,498	5,021
4	2,097	2,164	3,054	2,683	3,176	4,097	4,356
5	2,655	2,411	3,022	2,965	2,577	4,936	4,956
6	2,955						
TOTAL	10,894	7,507	9,948	10,651	13,287	24,471	23,434

The park operates a 1:32 ratio for staff to visitors.

During August there were 90 members of staff working each day.

On average, did the park employ enough staff per day in August? Explain your answer.

Show your working out and write the answer in the box below.

(5 marks)

END OF ASSESSMENT

	1a	1b	1c	1d	1e	1f	1g	2a	2b	2c	2d	2e	2f	2g	TOTAL
Mark(s) available	4	2	1	5	7	2	4	4	4	5	1	1	5	5	50
Mark(s) awarded															

Marker signature	
Date	

Moderator signature	
Date	



Level 2

Mathematics

Highfield Qualifications
 Highfield House
 Heavens Walk
 Lakeside
 Doncaster
 South Yorkshire
 DN4 5HZ
 United Kingdom

Tel: +44 0845 2260350 Tel: +44 01302 363277
 Fax: +44 0845 2260360 Fax: +44 01302 739144
info@highfield.co.uk www.highfieldqualifications.com