Candidate Name	Centre Number	Candidate Number

WELSH JOINT EDUCATION COMMITTEE

ENTRY LEVEL CERTIFICATE



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736/01

## **Entry Level Certificate**

#### **MATHEMATICS**

#### FINAL EXAMINATION

A.M. TUESDAY, 20 March 2007

(1 Hour 15 minutes)

### ADDITIONAL MATERIALS

In addition to this examination paper, you will need:

- a calculator;
- a ruler.

#### INSTRUCTIONS TO CANDIDATES

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **all** questions in the spaces provided in this booklet.

All working must be shown.

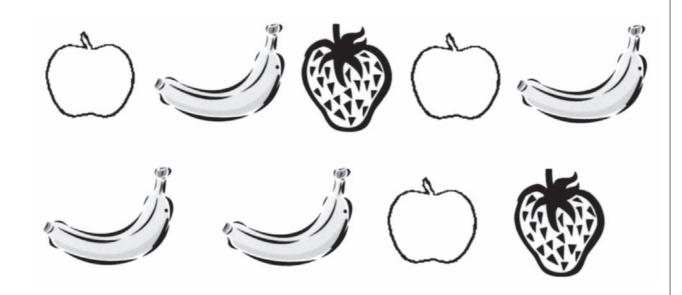
For Exam	iner's use only
Pages	Total mark per double page
2, 3	
4, 5	
6, 7	
8, 9	
10, 11	
12, 13	
14, 15	
16, 17	
18, 19	
20, 21	
22, 23	
TOTAL	

### INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or partquestion.

No certificate will be awarded to a candidate detected in any unfair practice during the examination.

1. The diagram shows pictures of some fruit.



,	(a)	Цот	monti	bananas	oro	thoras
۱	u	HOW	IIIaiiv	Dallallas	are	uicic:

Answer:

(b) What **fraction** of the fruit shown are apples?

Answer:

[2]

•	A 1	1 1	
2.	( `al		late
<b>∠</b>	Ca <sub>1</sub>	LC U	ıaıc

(a) 432 - 79,

[1]

(b) 
$$9 \times 68$$
.

[1]

# 3. Write down in **figures** the number **ten thousand and twenty**.

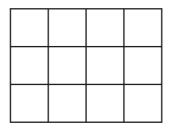
Answer: [1]

4. Write down these numbers in order of size, starting with the smallest.

2, -1, 0, -4, 1

[1]

# 5. Shade 25% of this diagram:



[1]

6. Here are two (2) ways of making 18 using multiplication:

$$2 \times 9 = 18$$

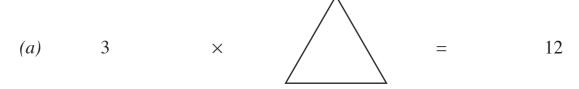
$$9 \times 2 = 18$$

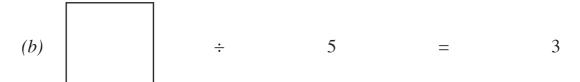
Write down two (2) other ways of making 18 using multiplication.

[2]

7.	The	number 7 has the same <b>pos</b>	<b>ition</b> in these	numbers.	
		576,	49070,	8371	
	Wha	at is the <b>value</b> of the 7 when	written in th	at <b>position</b> ?	
	Ansv	wer:			
					[1]
8.	Drin	king mugs are sold in a sho	p for £2.49 e	ach.	
		Millie buys 4 mugs.			
		How much do they cost he	er?		
	(b)	Siôn has £20 to spend on 1	mugs.		
		How many mugs can Siôn	buy?		
					[2]

[3]







10. Write down the next number in each of these number patterns.

11. Mr. and Mrs. Long take their **three** (3) children to the zoo. Their children are Amanda (aged 9), Barry (aged 7) and Claire (aged 3).

Adults and children older than 11 years old pay £9.50 each.

Children aged between 6 years old and 11 years old pay £3.50 each.

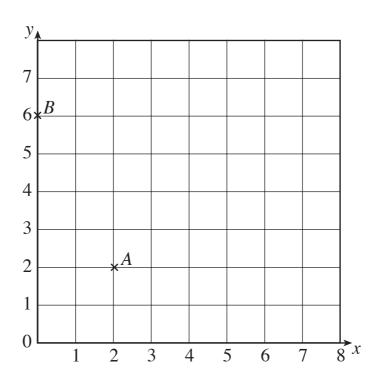
Children younger than 6 years old are allowed in free.

Complete the following bill and find the total cost.

Cost for Mr. and Mrs. Long £ .

Cost for the children  $\pounds$  .

Total cost  $\pounds$  .



The position of point A is (2, 2).

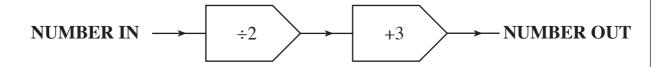
(a) Write down the position of the point B.

Answer: B( , )

(b) Plot the point C which has position (5, 7).

[2]

## **13.** This is a number machine:



Example: When the **NUMBER IN** is 4, the **NUMBER OUT** is 5.

Now answer the following questions.

(a)	When the <b>NUMBER IN</b> is 6, what is the <b>NUMBER OUT</b> ?	

<i>(b)</i>	When the <b>NUMBER</b>	<b>IN</b> is 3,	what is	the <b>NUMBER</b>	OUT?
------------	------------------------	-----------------	---------	-------------------	------

<i>(c)</i>	When the <b>NUMBER</b>	<b>IN</b> is 1	0.4, what	is the	NUMBER	OUT?
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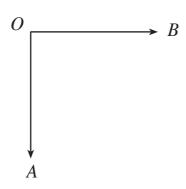
(d)	When the <b>NUMBER OUT</b> is 10, what is the <b>NUMBER IN</b> ?	

[4]

14. One tin of paint can cover  $42 \,\mathrm{m}^2$  of a wall.

How many of these tins of 230 m <sup>2</sup> ?		
Answer: tins		[2]

**15.** 



The pointer is fixed at *O*.

The pointer is moved from position *OA* **clockwise** to position *OB*.

Through how many **right-angles** has the pointer turned?

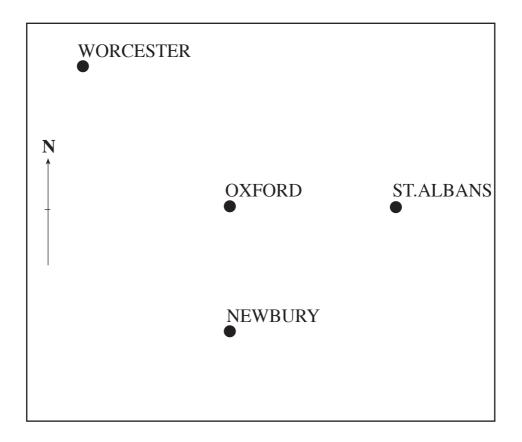
Answer:		right-angle	es.
---------	--	-------------	-----

[1]

[3]

16.	Chai	nge the fo	llowin	ng a.m. and p.m. times into 24 hour times.
	(a)	8.40 p.m	ı.	
	<i>(b)</i>	8.20 a.m	۱.	
	(c)	12 midd	ay.	
	Ansv	wers:	(a)	
			(b)	
			(a)	

(739-01) **Turn over.** 

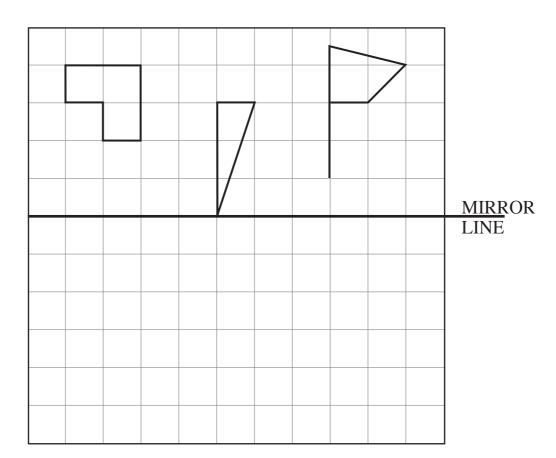


Pick the correct direction from this list:

north, east, south, west, north-west, south-west, north-east, south-east

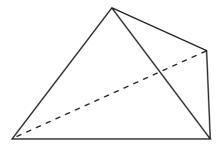
and then fill in the spaces in the following statements.

- (a) Oxford is ..... of Newbury.
- (b) Newbury is \_\_\_\_\_ of St. Albans.
- (c) Worcester is of Oxford.



Draw the **reflection** of **each** of the above shapes in the mirror line.

19. One piece of a child's set of building blocks is in the shape shown in the diagram.



<i>(a</i>	) How 1	many (	corners	does	the	shape	have?
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Answer:

(b) How many edges does the shape have?

Answer:

(c) How many **faces** does the shape have?

Answer:

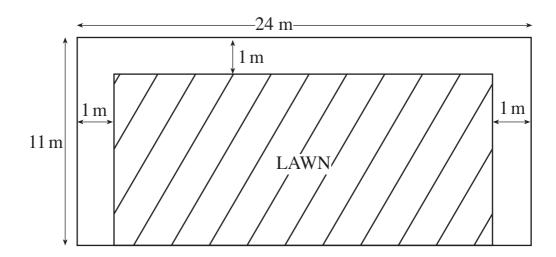
**20.** This is part of Mike's Monday timetable:

8.45 a.m.	Registration
8.55 a.m.	English
9.40 a.m.	Mathematics
10.25 a.m.	School Assembly
10.45 a.m.	Morning Break
11.05 a.m.	Science

Use the above timetable to answer the following questions.

(a)	How long in minutes does the Mathematics lesson last?	
	Answer: minutes	
(b)	The Science lesson lasts for 1 hour and 10 minutes. At what time will Science lesson end?	the
	Answer:	[2]

Turn over.



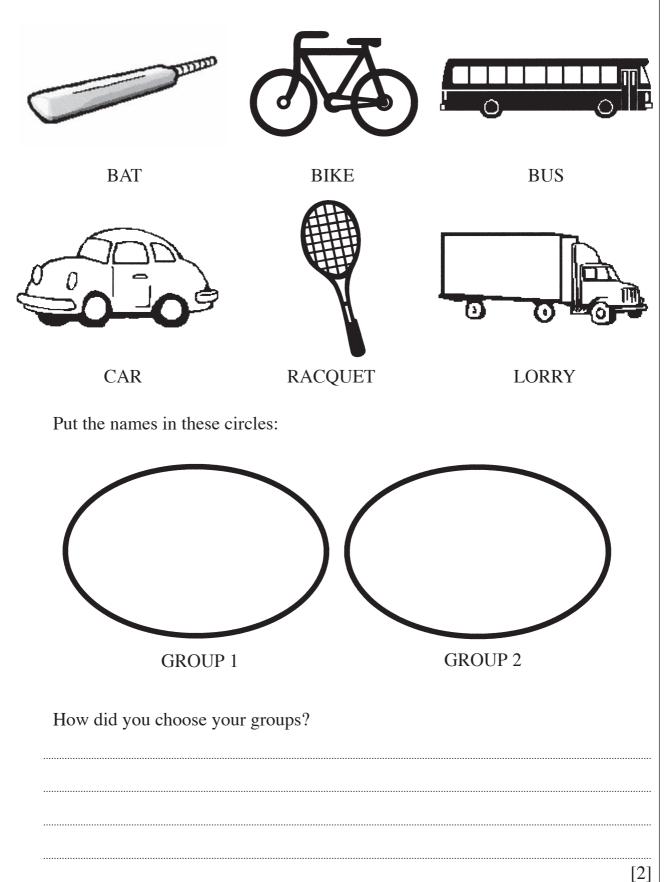
A rectangular plot of ground is converted into a lawn with a border on three sides of the lawn as shown in the diagram.

The plot of ground measures 24 m by 11 m.

The border is 1 m wide.

(a)	How <b>long</b> is the lawn?	
	Answer:	m
(b)	How wide is the lawn?	
	Answer:	m
(c)	Find the area of the lawn.	
	A newar-	$m^2$

22. Sort the following into two (2) groups.



23.	Bob makes a note of the number of telephone calls he received each day over a
	period of 20 days.

2, 5, 7, 3, 6, 0, 2, 5, 4, 4,

2, 3, 6, 0, 4, 5, 8, 3, 4, 3.

Bob arranges this information in the form of a table.

Number of calls received per day	Number of days this happens
0	
1	
2	
3	4
4	4
5	
6	
7	1
8	

(a) Complete the table.

(b) How many calls were received in total over the 20 days?

Answer:

24.	The school shop decides to sell 'ZING', a new soft drink. The sales of 'ZING'
	during the first three days of a week are shown below.

MONDAY			
TUESDAY		$\Box$	
WEDNESDAY			
THURSDAY			
FRIDAY			

KEY: 
$$\Box$$
 = 2 drinks,  $\Box$  = 1 drink

(a) How many drinks were sold on Tuesday?

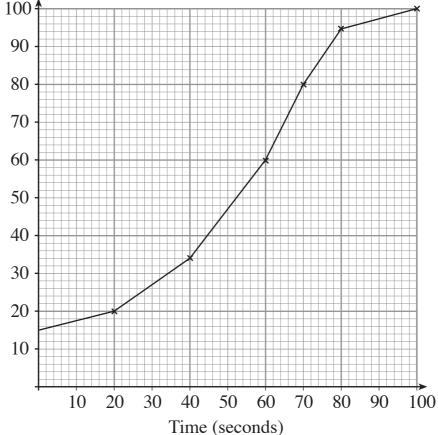
Answer:

(b) 4 drinks were sold on Thursday and 9 drinks were sold on Friday. Complete the table.

**25.** Mary carries out an experiment in the laboratory to record the temperature reached by a kettle of water as it heats up.

She presents her results in a graph with readings being started when the kettle is switched on.





The graph tells us (for example) that the temperature of the water will reach 80°C after 70 seconds.

Now answer these questions:

	<i>(a)</i>	What was the wa	ter temperature	when the kettle	e was switched on?
--	------------	-----------------	-----------------	-----------------	--------------------

Answer: .....°C

(b) After how many seconds was the temperature 70°C.

Answer: seconds

(c) By how many °C did the temperature rise between the 40th and the 60th seconds?

Answer: °C

			//	/	/				
	5		/ <del>&gt;</del> /			/			
72			Still Still	901/				/	
74	140	(\$			SOLE	A CAS	<b>/</b>		/
43	85	35	4	, /					
63	123	144	114	7				>/	
94	154	175	144	38			Service Service		
172	103	240	185	223	254				
74	38	109	71	129	160	119			

The chart shows the distance (in miles) between some towns or cities.

Example: the distance between Lincoln and Newcastle is 154 miles.

(a)	Write down	the distance	between	Liverpool	l and N	orwich.
, ,				1		

<i>(b)</i>	Write	down	the	name	of	the	place	which	is	129	miles	from
	Middlesbrough.											

Answer:	

[2]

Turn over.

<b>27.</b>	A bag	contains	75	discs,	all	of	the	same	shar	e.

71 of the discs are **red** and 4 of the discs are **white**.

One disc is drawn at random from the bag.

Use the appropriate words from this list:

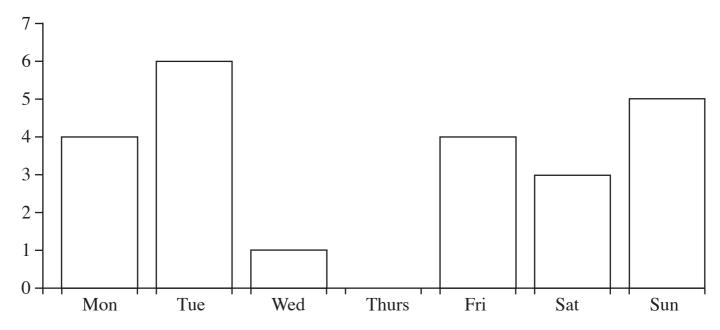
likely or unlikely or impossible

to complete each of the following sentences.

- (a) "It is \_\_\_\_\_ that the disc drawn is **blue**."
- (b) "It is \_\_\_\_\_ that the disc drawn is **red**."
- (c) "It is \_\_\_\_\_ that the disc drawn is **white**."

**28.** The graph below shows the number of hours of sunshine recorded in Rhyl during one week.

Number of hours of sunshine



(a	) On	which	dave	were	there	four	<b>(4</b> )	hours	οf	sunshir	ne?
(u)	) OII	WIIICII	uays	WCIC	uicic	IUUI	(4)	HOUI S	ΟI	SullSilli	10:

Answer and

(b) On one day the sky was completely covered by cloud for the whole day. Which day was this?

Answer:

(c) On what day was there **twice as many** hours of sunshine than there was on Saturday?

Answer: