

Centre Number						Paper Reference	Surname	Other Names
Candidate Number							Candidate Signature	

1387

Edexcel GCSE

Mathematics A

Paper 1

FOUNDATION TIER

Specimen Paper

Time: 1 hour 30 minutes

N0000

For Examiner's
use only

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For Team Leader's
use only

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Materials required for the examination

Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser.
Tracing paper may be used.

Items included with these question papers

Nil

Instructions to Candidates

In the boxes above, write your centre number, candidate number, the paper reference, your surname and other names and your signature. The paper reference is shown in the top left hand corner.

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

Supplementary answer sheets may be used

Information for Candidates

The total mark for this paper is 100.

The marks for the various parts of questions are shown in round brackets: e.g. (2).

Tracing paper may be used.

Calculators must not be used.

This question paper has 28 questions. There are 2 blank pages.

Advice to Candidates

Work steadily through the paper.

Do not spend too long on one question.

Show all stages in any calculations.

If you cannot answer a question, leave it and attempt the next one.

Return at the end to those you have left out.

N0000

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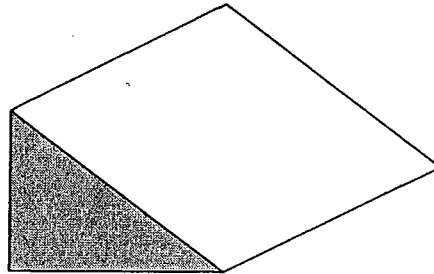
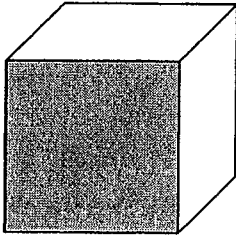
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Answer ALL TWENTY SEVEN questions.

Write down your answers in the spaces provided.

Do NOT use a calculator. You must write down all stages in your working.

1. Write down the mathematical name of each of the following shapes.

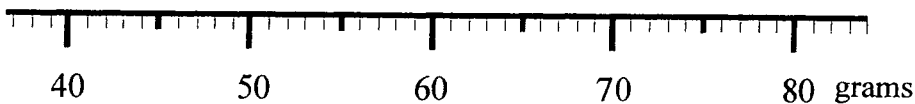


(i)

(ii)

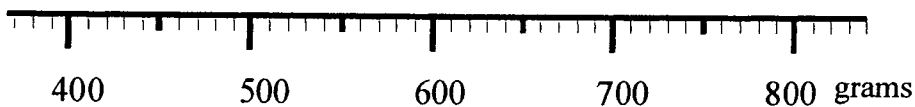
(Total 2 marks)

2. Here is a scale.



- (a) On the scale, mark with a cross the position of the weight 68 grams.

Here is another scale.



- (b) On the scale, mark with a cross the position of the weight 540 grams.

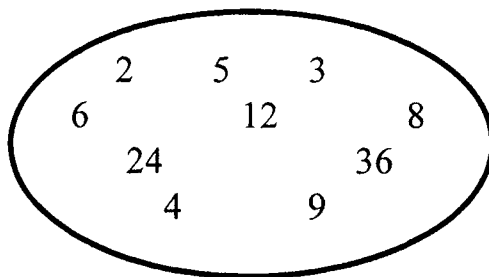
(1)
(Total 2 marks)

SSM2k
Grade G

NA2a
Grade G

NA2a
Grade G

3.



(a) From the numbers in the oval, write down the common factors of 24 and 36

NA2a
Grade G

.....
(2)

Three of the numbers in the oval are the square root of three other numbers in the oval.

(b) Write down all 6 numbers.

NA2b
Grade F

.....
(2)

(Total 4 marks)

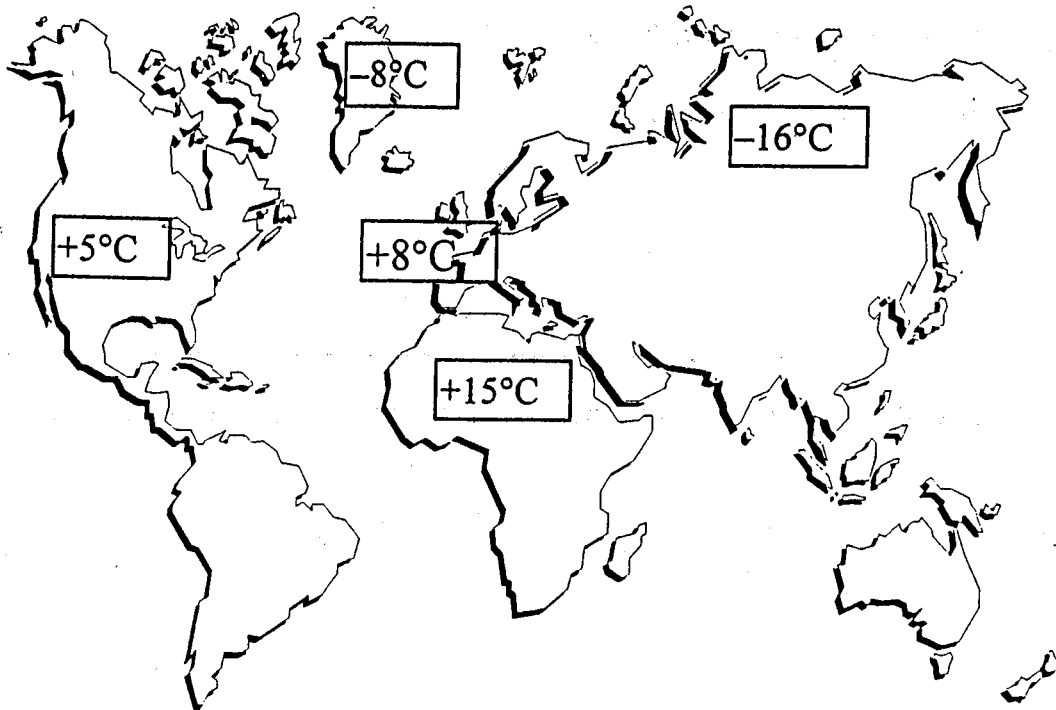
4. Work out

$$15 - 3 \times 4$$

NA3b
Grade F

.....
(Total 2 marks)

5.



The temperature one day last year in some countries is given below

Russia	-16°C
America	+ 5°C
United Kingdom	+ 8°C
Morocco	+15°C
Greenland	- 8°C

(a) Write down the name of the country with the

(i) highest temperature,

(ii) lowest temperature

NA2a
Grade G

NA2a
Grade G

(2)

The next day the temperature in Russia rose by 10°C

(b) Work out the new temperature in Russia

NA3a
Grade F

..... °C
(1)

The next day the temperature in America dropped by 8°C .

(c) Work out the new temperature in America.

NA3a
Grade F

..... $^{\circ}\text{C}$

(1)

(Total 4 marks)

6. The pictogram shows the number of cars passing the school between 4 pm and 4.30 pm each school day.

Monday

--	--	--

Tuesday

--	--

Wednesday

--	--	--	--

Thursday

Friday

--

represents 20 cars

- (a) Write down the number of cars that passed the school on

HD4a
Grade G

(i) Monday

..... cars

(ii) Tuesday

..... cars

(iii) Wednesday

..... cars

(3)

On Thursday 40 cars passed the school.

(b) Show this on the pictogram.

HD4a
Grade G

(1)

On Friday 25 cars passed the school.

(c) Show this on the pictogram.

HD4a
Grade G

(1)

(Total 5 marks)

7. (a) Write down the next two numbers in this number pattern.

NA6a
Grade G

1, 4, 7, 10, 13,,

(1)

- (b) Write down the rule that you used to find the next two numbers.

NA6a
Grade G

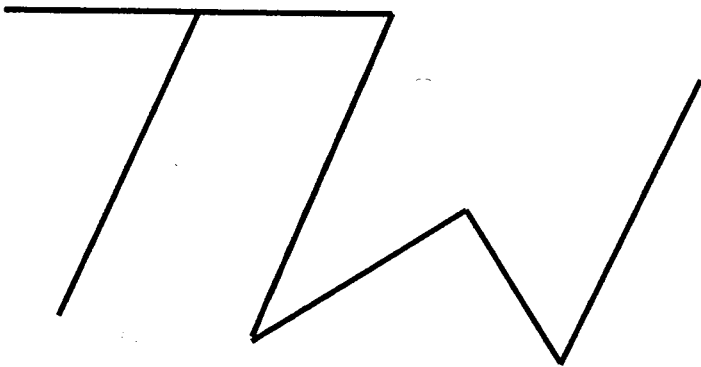
.....

.....

(1)

(Total 2 marks)

8. Here is the logo for a company.



- (a) On the diagram mark

(i) a pair of parallel lines with two arrows \Rightarrow

SSM2c
Grade G

(ii) a right angle with a letter S.

SSM2b
Grade F

(2)

- (b) On the diagram mark and label

SSM2b
Grade F

(i) an acute angle with a letter A,

(ii) a reflex angle with a letter R,

(iii) an obtuse angle with a letter O.

(3)

(Total 5 marks)

9.

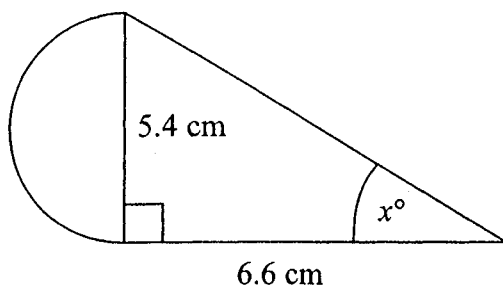


Diagram NOT
accurately drawn

- (a) Make an accurate drawing of the sketch.

SSM4d
Grade G

- (b) On your drawing, measure the size of the angle marked x° .

(3)

SSM4d
Grade G

(1)

(Total 4 marks)

10. Three packages weighed 356 grams, 29 grams and 4076 grams.

(a) Work out the total weight of the packages.

NA3a
Grade G

..... grams
(2)

Martin had £500 in his bank account.
He spent £23 of this money.

(b) How much did he have left?

NA3a
Grade G

£
(1)

Martin buys four pens.
Each pen costs 46 p.
He only has £10.

(c) Work out how much change he should get.

NA3a
Grade G

£
(2)

The cost of a coach holiday was £376.
53 people were on the coach.

- (d) Work out the total amount paid by each of the coach passengers.

NA3a
Grade F

£

(3)

(Total 8 marks)

11. Simplify

(a) $a + a + a + a$

NA5b
Grade F

.....
(1)

Simplify

(b) $4p + 2p$

NA5b
Grade F

.....
(1)

Simplify

(c) $7t + 3s - 5t + s$

NA5b
Grade E

.....
(1)

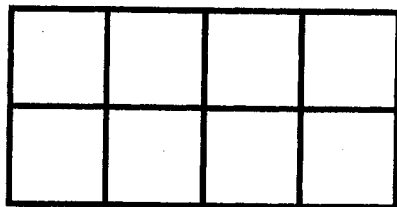
Expand and simplify

(d) $3(2m + 2)$

NA5b
Grade D

.....
(1)
(Total 4 marks)

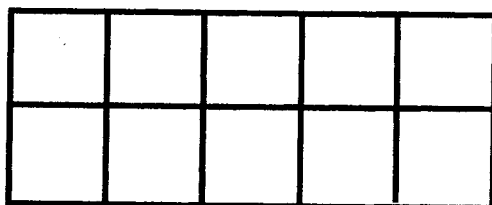
12. (a) Shade in $\frac{3}{4}$ of this shape.



(1)

NA2c
Grade G

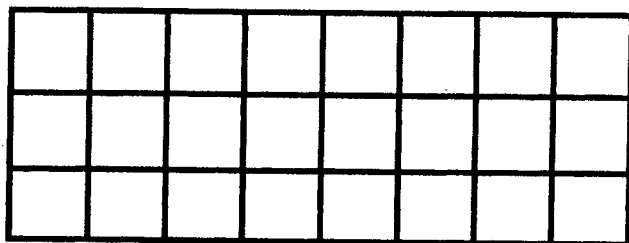
- (b) Shade in 0.6 of this shape.



(1)

NA2d
Grade G

- (c) Shade in 25% of this shape



(1)

NA2e
Grade G

- (b) Arrange these fractions in ascending order.

$$\frac{1}{2}, \frac{3}{4}, \frac{1}{3}, \frac{2}{3}, \frac{1}{4}$$

NA2c
Grade E

(2)

(Total 5 marks)

13. Jason writes down his maths homework marks for the last 10 homeworks.

Here are his marks

8, 6, 4, 8, 1, 10, 8, 4, 9, 5

(a) Write down the modal mark.

HD4b
Grade G

.....

(1)

(b) Work out the median mark.

HD4b
Grade G

.....

(2)

(c) Work out the range of the marks.

HD4b
Grade F

.....

(1)

(d) Work out the mean mark.

HD4b
Grade F

.....

(2)

(Total 6 marks)

14. Karen and David explore a number sequence.

The first 3 terms of the sequence are

3, 5, 7.

Karen says that the next number is 9.

David says that the next number is 11.

- (a) Explain why they could both be correct.

NA6a
Grade G/F

.....

.....

.....

(2)

- (b) Write down all the numbers between 20 and 30 that will appear in both Karen's and David's sequences.

NA6a
Grade F

.....

(2)

(Total 4 marks)

15. For each of these shapes, put a tick in the box if the statement is always true.

SSM2f
Grade F

	Rectangle	Parallelogram	Rhombus
Opposite sides are equal			
All angles are equal			
Diagonals cross at right angles			

(Total 3 marks)

16. Ben invests £60 in a bank account.

Interest of 5% is added at the end of each year.

Work out the money in Ben's account after one year.

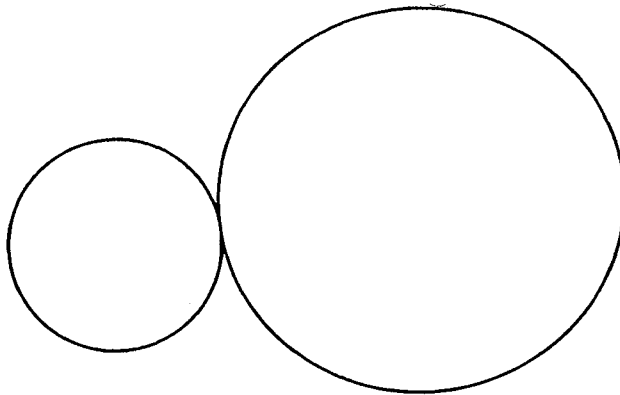
NA3m
Grade E

£
(Total 3 marks)

17. The number of cogs on two gear wheels are in the ratio 1 : 3.
The small wheel turns around exactly six times.

Write down the number of times the larger wheel will turn around.

NA2f
Grade E



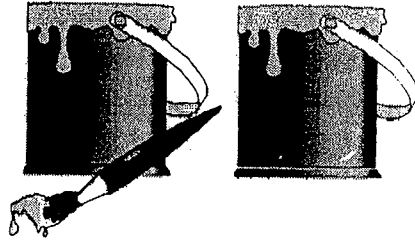
..... times
(Total 1 mark)

18. Jim said "I've got three quarters of a tin of paint".

Mary said "I've got four sixths of a tin of paint and my tin of paint is the same size as yours".

Who has got the most paint, Mary or Jim?

Explain your answer.



NA2c
Grade E

(Total 1 mark)

19.

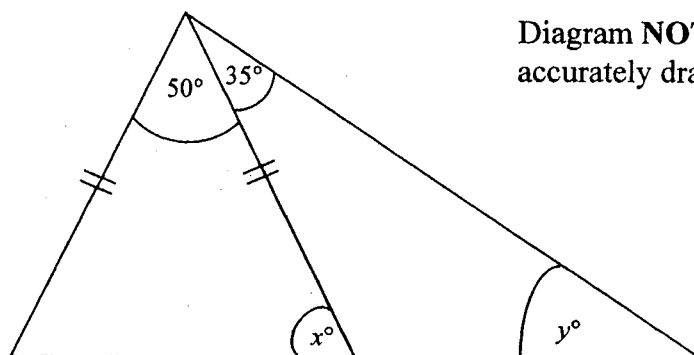


Diagram **NOT**
accurately drawn

- (a) (i) Work out the value of x° .

SSM2d
Grade E

$x = \dots\dots\dots$

- (ii) Explain how you worked out your answer.

.....
.....

(2)

- (b) (i) Work out the value of y° .

SSM2a
Grade E

$y = \dots\dots\dots$

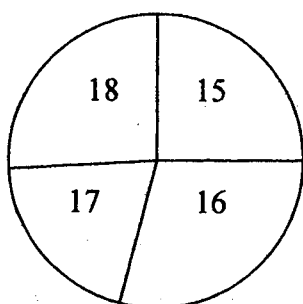
- (ii) Explain how you worked out your answer.

.....
.....

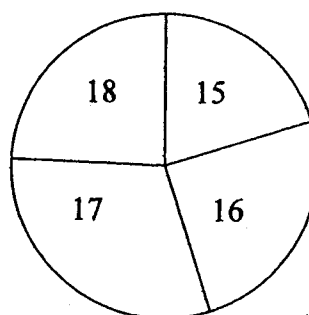
(2)

(Total 4 marks)

20.



Week A



Week B

The ages of everyone attending a youth club disco are recorded.

The results are shown in the pie charts for two separate weeks.

Mark suggests that there were more 15 year olds attending in week A than week B.

- (a) Explain whether you think Mark was correct.
Give a reason for your answer.

HD1c
Grade E

.....

.....

(2)

- (b) Suggest how these diagrams could be improved.

HD1c
Grade E

.....

.....

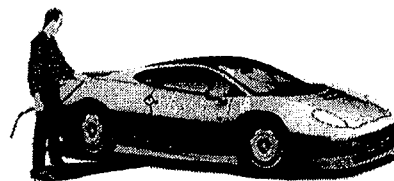
(2)

(Total 4 marks)

21. Marlene and Roy travelled from London to Edinburgh by car.

The distance from London to Edinburgh is 400 miles.

(a) Estimate the number of kilometres in 400 miles.



SSM4a
Grade E

..... km
(2)

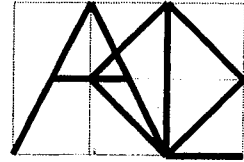
The car used 45 litres of petrol on the journey.

(b) Estimate the number of gallons in 45 litres.

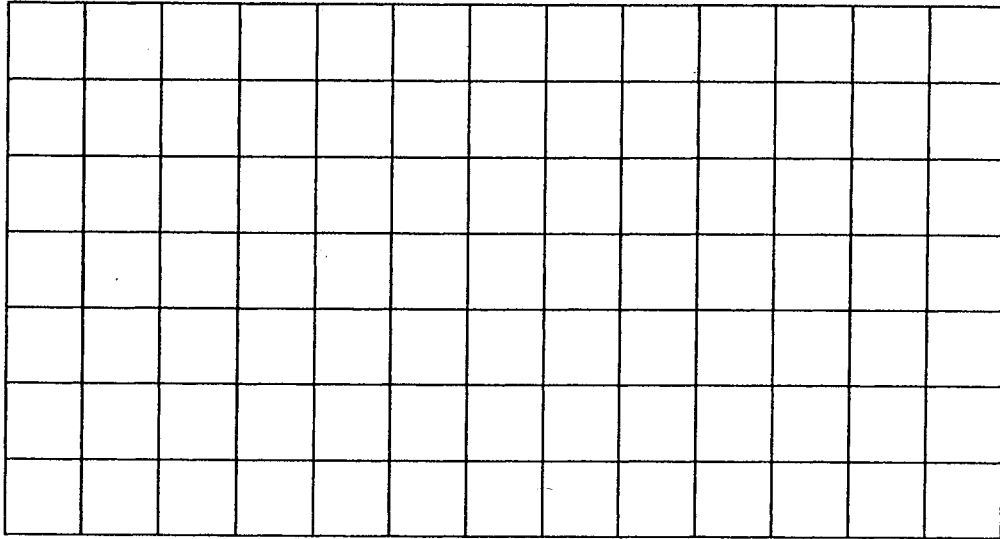
SSM4a
Grade E

..... gallons
(2)
(Total 4 marks)

22. The AOL postal company has a logo.
The logo is to be made into a watermark which is three times as large.

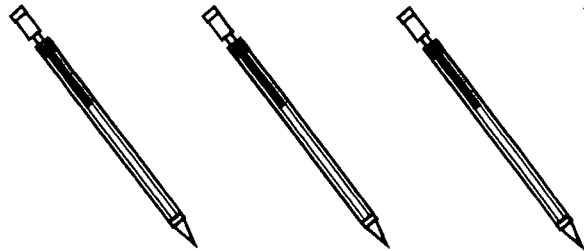


Draw your answer on the grid below.



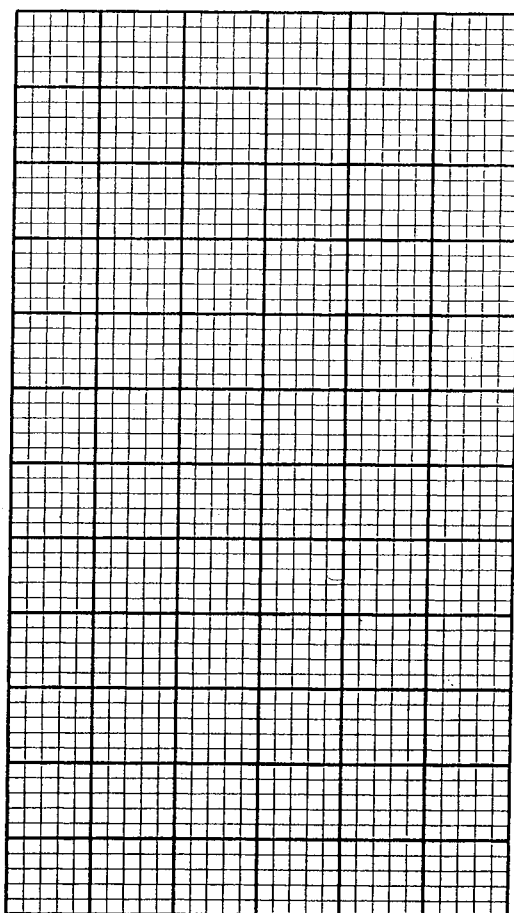
(Total 2 marks)

23. The cost of 15 pens is £2.45.
Work out the cost of 9 pens.



£
(Total 2 marks)

- E 24. Draw the graph of $y = 2x - 15$ on the grid below.



(Total 3 marks)

25. Jasmine shared n sweets with her sister Rosemary.

Jasmine shared them in the ratio 3:1

Jasmine kept the larger share for herself.



(a) Write down an expression for the number of sweets kept by Jasmine.

NA5a
Grade D

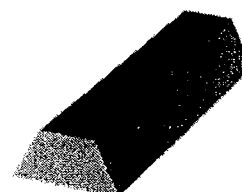
Jasmine sweets
(2)

The sweets cost 8p each.

Chocolate bars cost 30p each.



8p each



30p each

(b) Write down an expression for the total cost of n sweets and c chocolate bars.

NA5a
Grade D

.....
(2)
(Total 4 marks)

26. A maths test has two parts, A and B.

Part A is out of 30.

Part B is out of 50.

Zuleya scored 64 marks for the two parts.

Susie scored 90% in part A and 72% in part B.

Who scored the higher marks?

Explain your answer.

NA3e
Grade D

.....

.....

.....

.....

(Total 4 marks)

27. Solve the equations

(a) $2q + 7 = -1$

NA5e
Grade D

$q = \dots\dots\dots$
(2)

(b) $12a + 2 = 2a - 6$

NA5e
Grade D

$a = \dots\dots\dots$
(2)
(Total 4 marks)

28. The surface area of a cube is 24cm^2 .

Work out the volume of the cube.

SSM4f
Grade D

$\dots\dots\dots$
(Total 4 marks)

TOTAL FOR PAPER: 100 MARKS