Centre No.						Paper Reference							Surname	Initial(s)
Candidate No.						4	4	0	0	/	1	F	Signature	

Paper Reference(s)

4400/1F

Examiner's use only

Team Leader's use only

London Examinations IGCSE

Mathematics

Paper 1F

Foundation Tier

Thursday 6 November 2008 – Morning

Time: 2 hours

Materials required for examination
Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser, calculator. Tracing paper may be used.

Items included with question papers
Nil

Instructions to Candidates

In the boxes above, write your centre number, candidate number, your surname, initials and signature.
Check that you have the correct question paper.
Answer ALL the questions. Write your answers in the spaces provided in this question paper.
Without sufficient working, correct answers may be awarded no marks.
You must NOT write on the formulae page. Anything you write on the formulae page will gain NO credit.
If you need more space to complete your answer to any question, use additional answer sheets.

Information for Candidates

The marks for individual questions and the parts of questions are shown in round brackets: e.g. **(2)**.
There are 22 questions in this question paper. The total mark for this paper is 100.
There are 20 pages in this question paper. Any blank pages are indicated.
You may use a calculator.

Advice to Candidates

Write your answers neatly and in good English.

Printer's Log. No.
N30337A
W850/U4400/57570 4/4/3

N 3 0 3 3 7 A 0 1 2 0

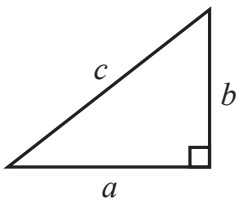
Turn over

edexcel
advancing learning, changing lives

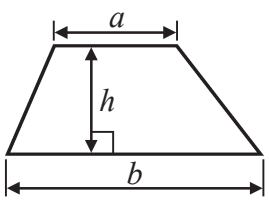
IGCSE MATHEMATICS 4400

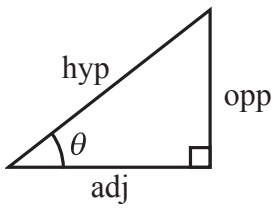
FORMULA SHEET – FOUNDATION TIER

Pythagoras' Theorem
$a^2 + b^2 = c^2$



Area of a trapezium = $\frac{1}{2}(a + b)h$





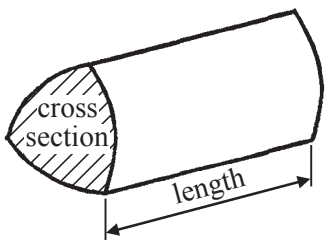
adj = hyp × cos θ
opp = hyp × sin θ
opp = adj × tan θ

or $\sin\theta = \frac{\text{opp}}{\text{hyp}}$

$\cos\theta = \frac{\text{adj}}{\text{hyp}}$

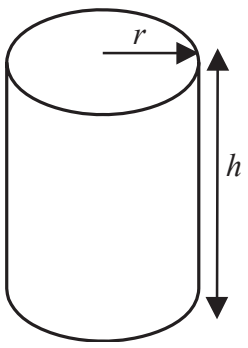
$\tan\theta = \frac{\text{opp}}{\text{adj}}$

Volume of prism = area of cross section × length



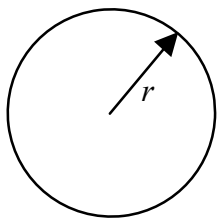
Circumference of circle = $2\pi r$

Area of circle = πr^2



Volume of cylinder = $\pi r^2 h$

Curved surface area of cylinder = $2\pi rh$



Leave blank

Answer ALL TWENTY TWO questions.

Write your answers in the spaces provided.

You must write down all stages in your working.

1. The height of Mount Annapurna is 8091 metres.

(a) Write the number 8091 in words.

.....

(1)

(b) Write the number 8091 correct to the nearest ten.

.....

(1)

(c) Write down the value of the 8 in the number 8091

.....

(1)

Mount Everest is 759 metres **higher** than Mount Annapurna.

(d) Work out the height of Mount Everest.

..... metres

(1)

Q1

(Total 4 marks)

Leave blank

2. Esther went to Kenya on holiday.
The pictogram shows information about the number of elephants she saw on each of six days.

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	

.  represents 5 elephants

(a) On which day did Esther see the smallest number of elephants?

.....
(1)

(b) How many elephants did she see on Monday?

.....
(1)

(c) How many elephants did she see on Thursday?

.....
(1)

(d) On which day did she see 17 elephants?

.....
(1)

Leave blank

(e) Find the ratio of the number of elephants Esther saw on Monday to the number of elephants she saw on Tuesday.
Give your ratio in its simplest form.

.....
(2)

4% of the total number of elephants in Africa are in Kenya.

(f) Write 4% as a decimal.

.....
(1)

(g) Write 4% as a fraction.
Give your fraction in its simplest form.

.....
(2)

Q2

(Total 9 marks)

3.

6	7	8	9	10	11

From the numbers in the box, write down

(i) a multiple of 4

.....

(ii) a square number

.....

(iii) a factor of 24

.....

(iv) a prime factor of 70

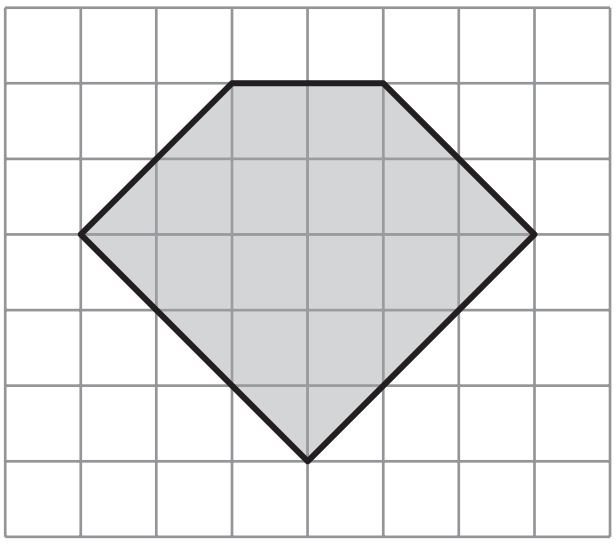
.....

Q3

(Total 4 marks)

Leave blank

4. A shaded 5-sided polygon is shown on a grid of centimetre squares.



(a) Write down the special name for a 5-sided polygon.

.....

(1)

(b) On the polygon, mark with arrows (>) a pair of parallel lines.

(1)

(c) On the polygon, draw the line of symmetry.

(1)

(d) On the polygon, mark with the letter R a right angle.

(1)

(e) Find the area of the polygon.

..... cm^2

(2)

Q4

(Total 6 marks)

Leave blank

5. Here are the first five terms of a number sequence.

3 11 19 27 35

(a) Write down the next two terms of the sequence.

..... , ...

(2)

(b) Explain how you worked out your answer.

.....

.....

(1)

(c) Find the 15th term of the sequence.

.....

(1)

(d) Explain why 724 cannot be a term of the sequence.

.....

(1) **Q5**

(Total 5 marks)

6. (a) Find $\sqrt{8.41}$

.....

(1)

(b) (i) Find 4.37^2
Write down all the figures on your calculator display.

.....

(ii) Write your answer to part (i) correct to 1 decimal place.

.....

(2)

(c) Find 2.6^3
Write down all the figures on your calculator display.

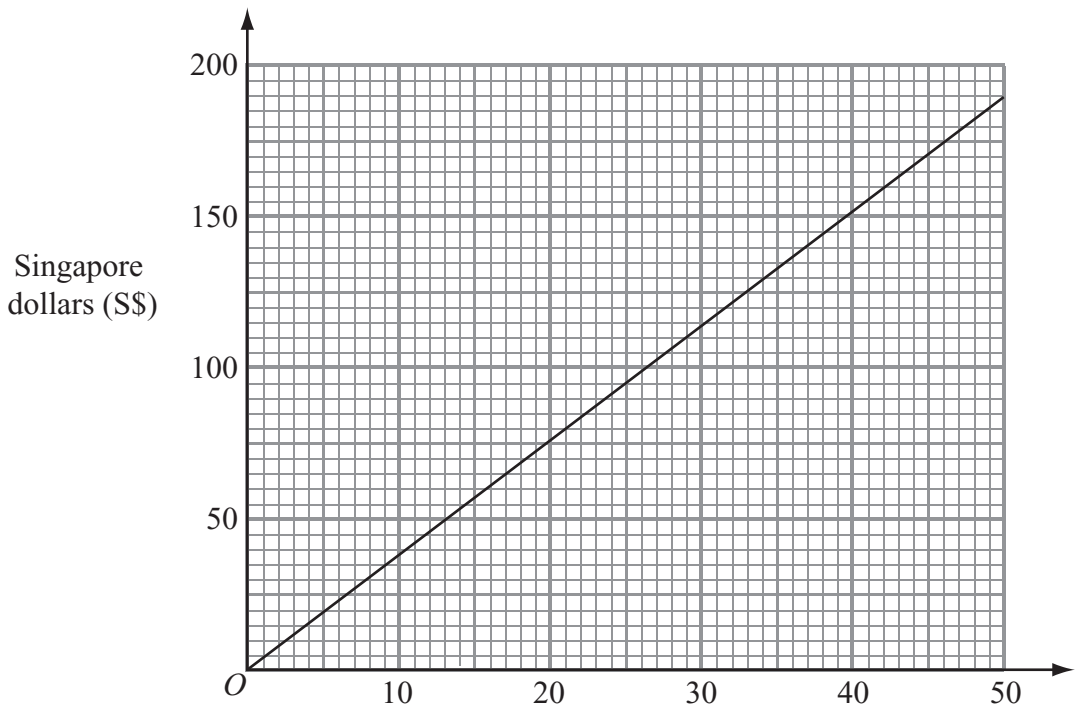
.....

(1) **Q6**

(Total 4 marks)

Leave blank

7. This graph can be used to convert between Cyprus pounds (C£) and Singapore dollars (S$).



(a) Use the graph to convert

(i) C£30 to Singapore dollars,

S$ .....

(ii) C£18 to Singapore dollars,

S$ .....

(iii) S$160 to Cyprus pounds.

C£ .....

(3)

(b) Convert C£120 to Singapore dollars.

S$ .....

(2)

(Total 5 marks)

Q7

Leave blank

8.

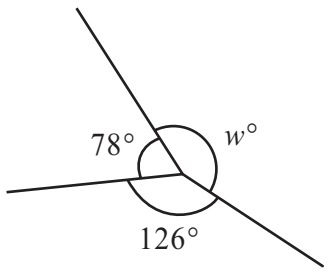


Diagram **NOT** accurately drawn

(a) (i) Find the value of w.

$w =$ .....

(ii) Give a reason for your answer.

.....

(2)

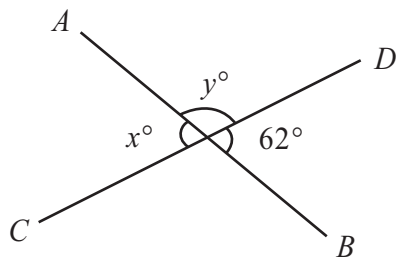


Diagram **NOT** accurately drawn

AB and CD are straight lines.

(b) Find the value of x.

$x =$ .....

(1)

(c) (i) Find the value of y.

$y =$ .....

(ii) Give a reason for your answer.

.....

(2)

Q8

(Total 5 marks)

Turn over

Leave blank

9. There are 10 counters in a bag.

1 of the counters is red.
The rest of the counters are either white or blue.

Ajit takes at random a counter from the bag.

(a) Write down the probability that he will take

(i) a red counter,

.....

(ii) a black counter.

.....

(2)

When Ajit takes one of the 10 counters, the probability that he will take a white counter is $\frac{2}{5}$

(b) Find the probability that he will **not** take a white counter.

.....

(1)

(c) Work out the number of white counters in the bag.

.....

(2) **Q9**

(Total 5 marks)

10. Write these numbers in order of size.
Start with the smallest number.

$\frac{9}{20}$ $\quad$ $\frac{3}{7}$ $\quad$ $\frac{4}{9}$ $\quad$ 0.43

..... **Q10**

(Total 3 marks)

Leave blank

11.

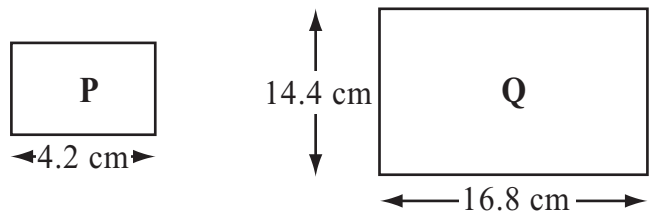


Diagram **NOT** accurately drawn

The diagram shows two rectangles.
Rectangle **Q** is an enlargement of rectangle **P**.

Work out the area of rectangle **P**.

..... cm^2

(Total 4 marks)

Q11

12. (a) Simplify $n^2 + n^2 + n^2 + n^2$

.....

(1)

(b) $T = 3p - 2q$

Work out the value of T when $p = 4$ and $q = -5$

$T =$ .....

(2)

(c) Solve $4x + 5 = 11$
You must show sufficient working.

$x =$ .....

(2)

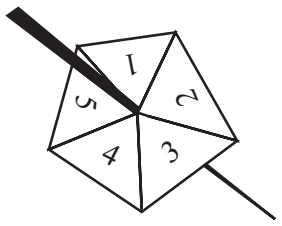
(Total 5 marks)

Q12

Turn over

Leave blank

13. Jamila spins this 5-sided spinner 50 times.
The table shows information about her scores.



Score	Frequency
1	10
2	9
3	3
4	17
5	11

(a) Find the median score.

.....

(2)

(b) Work out the mean score.

.....

(3)

(c) Jamila is going to spin the spinner once more.
Find an estimate of the probability that her score will be 4

.....

(1)

(d) Is the spinner fair?

Tick (✓) the appropriate box.

Yes	No
☐	☐

Give a reason for your answer.

.....

.....

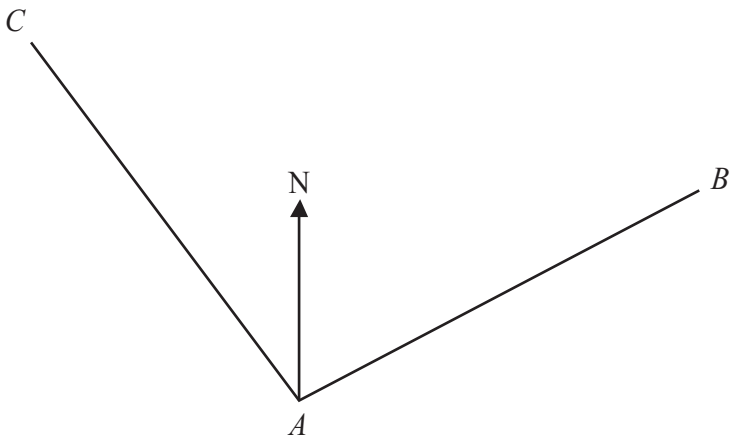
(1)

Q13

(Total 7 marks)

Leave blank

14.



Find, by measurement, the bearing of

(i) *B* from *A*,

..... °

(ii) *C* from *A*.

..... °

Q14

(Total 2 marks)

Leave blank

15. In a sale, normal prices were reduced by 35%.

(a) The normal price of a camera was £180
Work out the sale price of the camera.

£ .....
(3)

(b) The normal price of a clock was reduced by £84
Work out the normal price of the clock.

£ .....
(3)

Q15

(Total 6 marks)

16. (a) Factorise $7p - 21$

.....
(1)

(b) Solve $4(x + 5) = 12$
You must show sufficient working.

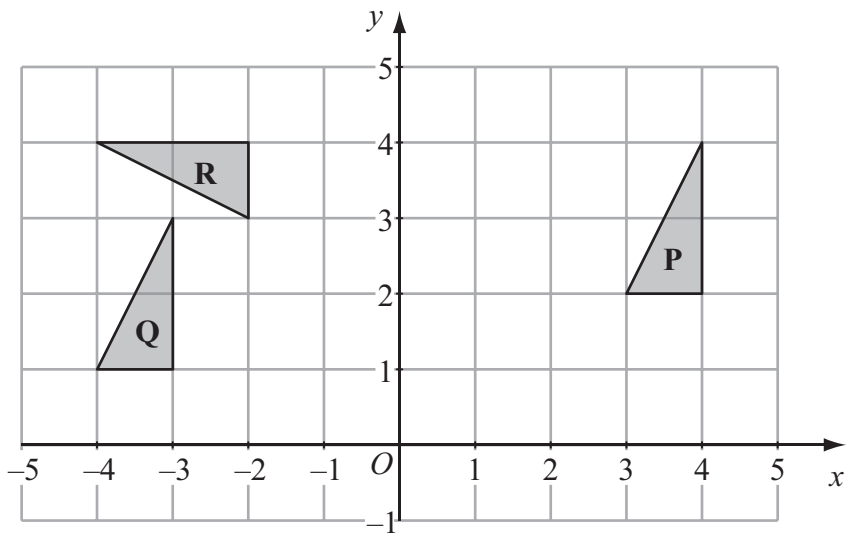
x = ...
(3)

Q16

(Total 4 marks)

Leave blank

17.



(a) Describe fully the single transformation which maps triangle **P** onto triangle **Q**.

.....

.....

(2)

(b) Describe fully the single transformation which maps triangle **P** onto triangle **R**.

.....

.....

(3)

(Total 5 marks)

Q17

18. Find the value of $\dfrac{7.9+3.8}{8.6-2.1}$

.....

(Total 2 marks)

Q18

Leave blank

19.

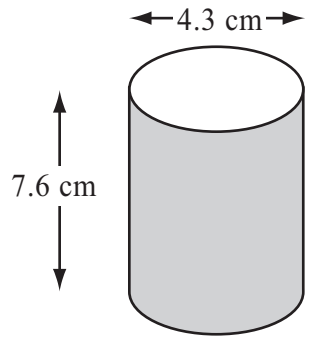


Diagram **NOT** accurately drawn

A solid cylinder has a diameter of 4.3 cm and a height of 7.6 cm.

Work out the volume of the cylinder.
Give your answer correct to 3 significant figures.

..... cm^3

(Total 3 marks)

Q19

20. Show that $\frac{2}{5} \div \frac{4}{7} = \frac{7}{10}$

Q20

(Total 3 marks)

Leave blank

21. (a) Simplify

(i) $p^5 \times p$

.....

(ii) $\dfrac{q^8}{q^3}$

.....

(2)

(b) Expand and simplify $3(4x - 1) - 4(2x - 3)$

.....

(2)

(c) Expand and simplify $(y + 3)(y + 5)$

.....

(2) **Q21**

(Total 6 marks)

Leave blank

22.

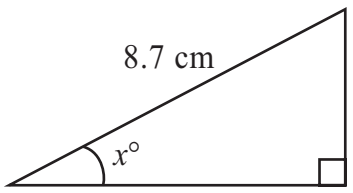


Diagram **NOT** accurately drawn

Work out the value of x.
Give your answer correct to 1 decimal place.

x = ...

Q22

(Total 3 marks)

TOTAL FOR PAPER: 100 MARKS

END

BLANK PAGE

BLANK PAGE