MATHEMATICS C
(Graduated Assessment)

1966/2341A

FOUNDATION TERMINAL PAPER – SECTION A

| Monday | **5 JUNE 2006** | Afternoon | 1 hour |

Candidates answer on the question paper.
Additional materials:
    Geometrical instruments
    Pie chart scale (optional)
    Tracing paper (optional)

Candidate
Name

Centre
Number

Candidate
Number

TIME   1 hour

INSTRUCTIONS TO CANDIDATES

* Write your name, Centre number and candidate number in the boxes above.
* Answer **all** the questions.
* Use blue or black ink. Pencil may be used for graphs and diagrams only.
* Read each question carefully and make sure you know what you have to do before starting your answer.
* In many questions marks will be given for a correct method even if the answer is incorrect.
* Do **not** write in the bar code.
* Do **not** write outside the box bordering each page.
* WRITE YOUR ANSWER TO EACH QUESTION IN THE SPACE PROVIDED. ANSWERS WRITTEN ELSEWHERE WILL NOT BE MARKED.

INFORMATION FOR CANDIDATES

* The number of marks is given in brackets [ ] at the end of each question or part question.
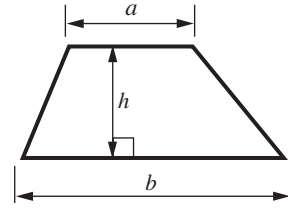* The total number of marks for this Section is 50.

| **WARNING** |
| **You are not allowed to use a** |
| **calculator in Section A of this paper.** |

FOR EXAMINER'S USE	
Section A	
Section B	
TOTAL	

This question paper consists of 11 printed pages and 1 blank page.

[Turn over

Formula Sheet: Foundation Tier

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

PLEASE DO NOT WRITE ON THIS PAGE

1 Find the missing numbers.

(a) ★ + 9 = 15

(a) ....[1]

(b) 23 − ● = 10

(b) ....[1]

(c) 5 × ◆ = 45

(c) ....[1]

(d) ■ ÷ 2 = 7

(d) ....[1]

4

2
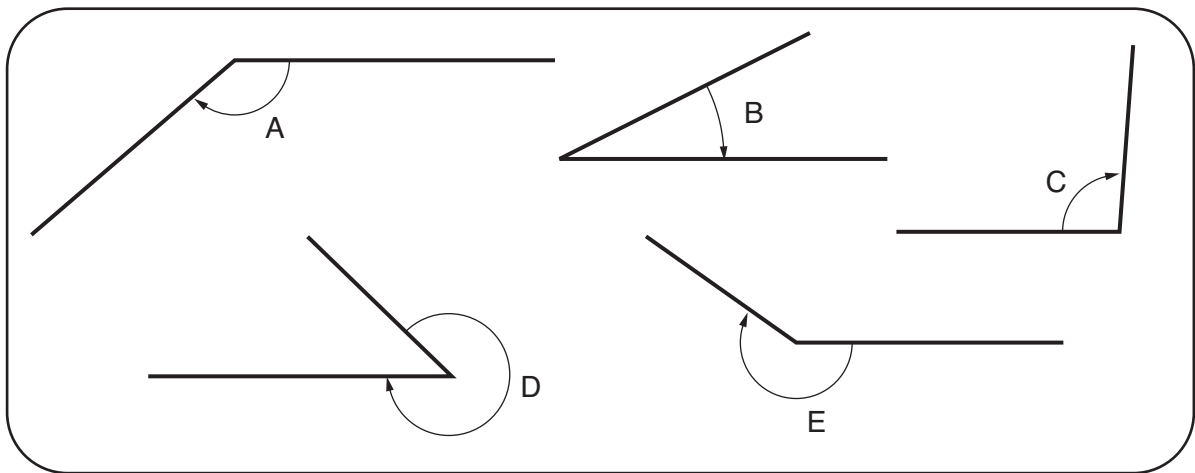
(a) Put these angles in order of size, smallest first.

.... [2]
smallest

(b) Which angle is closest to 90°?

(b) ....[1]

3

[Turn over

3 Complete.

(a)
```
    5  2  6
 −  1  4  2
 ─────────
   □  □  □
 ─────────
```
[1]

(b)
```
    3  □
 +  □  6
 ───────
    9  3
 ───────
```
[2]

(c) ☐ × 5 = 65   [1]

(d) 23·5 ÷ 10 = ☐   [1]

(e) 2·6 × 3 = ☐   [1]

(f) $\frac{1}{4}$ of 84 = ☐   [1]

(g) 6 squared = ☐   [1]

8

4   Solve.

   (a) $2x = 18$

   (a) ....[1]

   (b) $5 + x = 20$

   (b) ....[1]

   (c) $7 - x = 4$

   (c) ....[1]

3	

5   Rachel wants to multiply 74·53 by 100.

   Which of these are correct methods?
   Put a tick (✓) or a cross (✗) next to each.

   move the digits two places to the right   ....

   move the digits two places to the left   ....

   move the decimal point two places to the left   ....

   move the digit 7 to the thousands,
   the digit 4 to the hundreds, and so on   ....

   put two zeros after the 3   ....   [2]

2	

[Turn over

6 Mrs Watson takes Andy and Paul on the Steam Special from York to Birmingham.

(a) Mrs Watson buys one adult and two child tickets.
They travel second class.

Steam Special	**York to Birmingham**			
	Adult	Child	Senior citizen	Club member
First class	£70	£45	£55	£35
Second class	£50	£35	£42	£25

Complete the bill for the tickets.

1 adult ticket (second class)	£ ....*50*..........
2 child tickets (second class)	£ ....
Total	£ ....

[2]

(b) Paul records these times.

Leave York	17 06	
Arrive Whittington	18 35	Fill up with water
Leave Whittington	19 02	
Arrive Humberstone Road	20 29	Fill up with water
Leave Humberstone Road	20 53	
Arrive Birmingham	22 34	

(i) How long does the journey take from York to Birmingham?

(b)(i) .... hours ....minutes [2]

(ii) The train stops twice to fill up with water.

Which stop is the longer, Whittington or Humberstone Road?
By how many minutes?
You must show all your working.

(ii) .... was longer by ....minutes [3]

(c) Mrs Watson takes a picnic on the trip.

(i) She packs some cartons of drink.

> 1 cranberry
> 3 orange
> 2 pineapple

She takes a carton without looking.

What is the probability that she picks orange?

(c)(i) ....[2]

(ii) She packs plenty of sandwiches.

> egg
> ham
> tuna

Paul eats two sandwiches.

Write down all the different pairs of sandwiches he could eat.
The list has been started for you.

You may not need all the lines.

egg	egg

[2]

11

[Turn over

7 Lisa and Angus are playing a game.

(a) Lisa says

> What is the name of my solid?
> The net of my solid is made by
> joining 6 equal squares.

Write down the name of the solid.

(a) ....[1]

(b) Angus says

> What is my fraction?
> It is equal to 75%.

Write down the fraction.

(b) ....[1]

(c) Lisa says

> What is my number?
> It is between 10 and 50.
> It is a square number.
> It is a multiple of 3.

Write down the number.
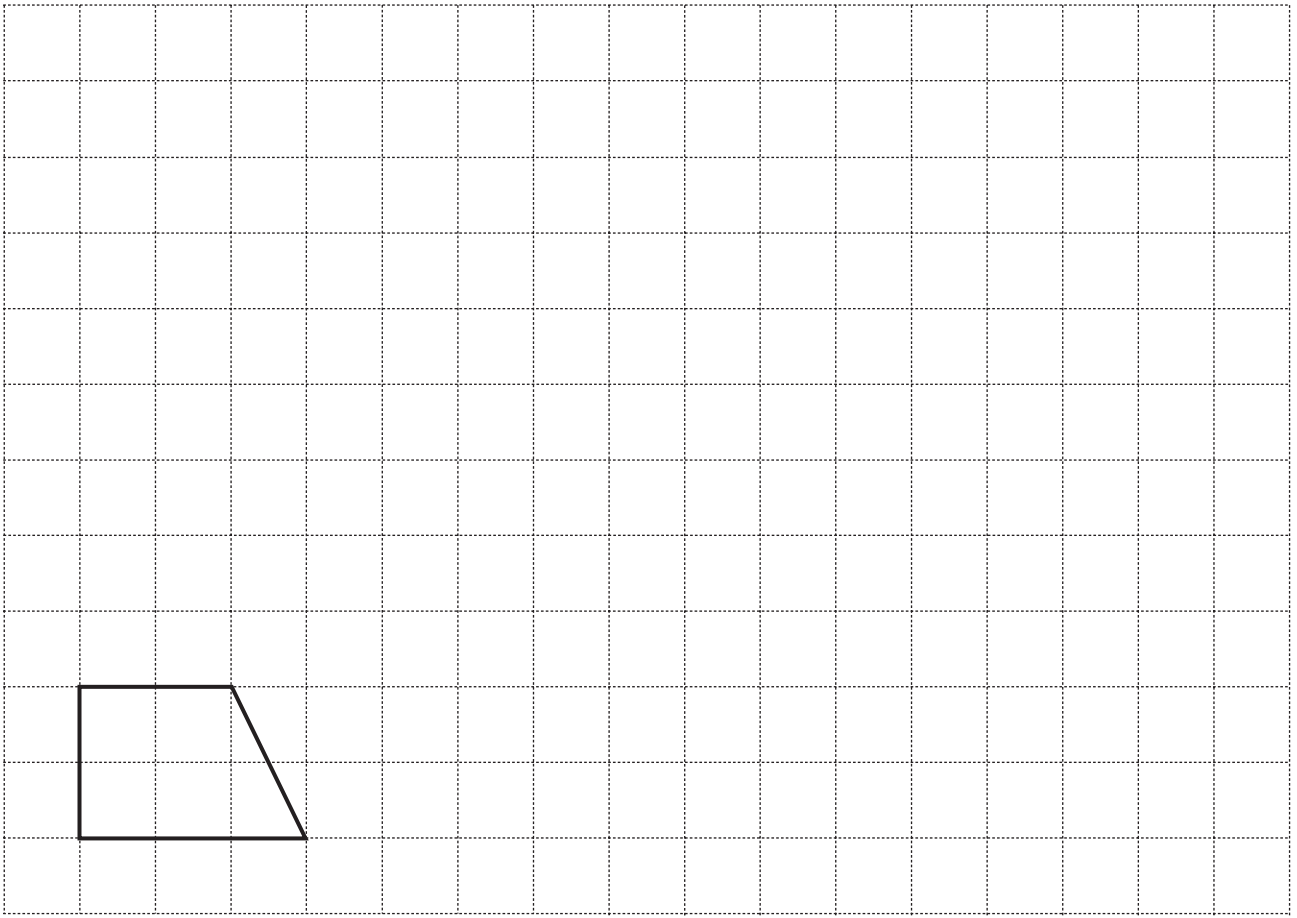
(c) ....[2]

(d) Angus says

> What is the name of my shape?
> It has 4 equal sides.
> The opposite angles are equal.
> The diagonals are **not** equal.
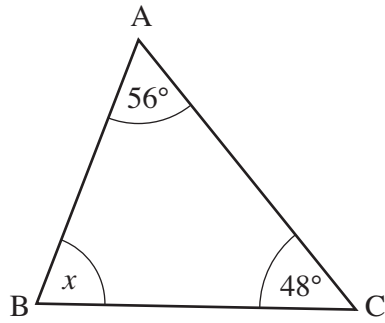
Write down the name of the shape.

(d) ....[2]

6

8

Draw an enlargement of this shape.
Use a scale factor of 3. [2]

9

Not to scale

(a) (i) Work out angle *x*.

(a)(i) ....° [1]

(ii) Is triangle ABC isosceles?
Give a reason for your answer.

.... because ....

....[1]

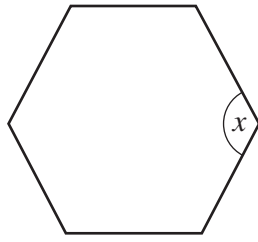**(b)** This triangle is drawn full size.
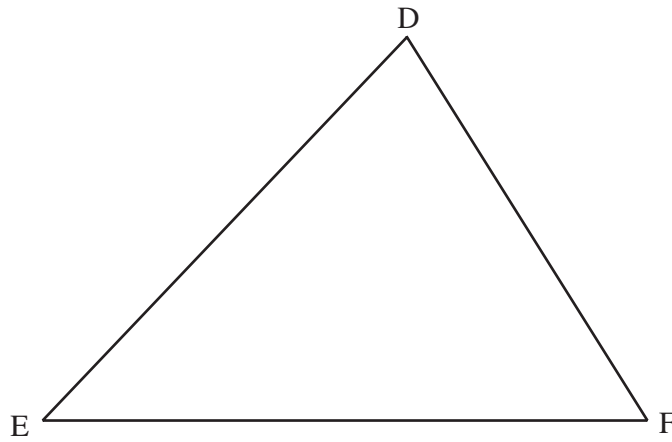
Make some suitable measurements.
Use them to work out the area of this triangle.

(b) ....cm^2 [3]

(c) Work out the interior angle, x, of a regular hexagon.

Not to scale

(c) ....° [2]

7	

10 Paula went shopping.
She bought some CDs, a ring and some clothes.

She spent a total of £160.

She spent $\frac{1}{5}$ of £160 on CDs.

She spent $\frac{3}{8}$ of £160 on the ring.

How much money did she spend on clothes?

£ ....[4]

4	

12

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