

Write your name here									
Surname	Other names								
Centre Number	Candidate Number								
<b>Edexcel IGCSE</b>	<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> </tr> </table>								
<b>Further Pure Mathematics</b>									
<b>Paper 1</b>									
Monday 13 June 2011 – Afternoon <b>Time: 2 hours</b>	Paper Reference <b>4PM0/01</b>								
<b>Calculators may be used.</b>	Total Marks								

### Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Without sufficient working, correct answers may be awarded no marks.
- Answer the questions in the spaces provided  
– *there may be more space than you need.*

### Information

- The total mark for this paper is 100.
- The marks for **each** question are shown in brackets  
– *use this as a guide as to how much time to spend on each question.*

### Advice

- Read each question carefully before you start to answer it.
- Check your answers if you have time at the end.

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**Answer all TEN questions**

**Write your answers in the spaces provided**

**You must write down all stages in your working**

**1** Solve the equations

$$y = x^2 - 3x + 2$$

$$y - x = 7$$

(5)

**(Total for Question 1 is 5 marks)**





























**Question 8 continued**

A large rectangular area with rounded corners, containing 25 horizontal dotted lines for writing.



**Question 8 continued**

A large rectangular area with rounded corners, containing 25 horizontal dotted lines for writing.



9 A curve has equation

$$y = \frac{2x^2 - 6}{3x - 6} \quad x \neq 2$$

(a) Write down an equation of the asymptote to the curve which is parallel to the  $y$ -axis. (1)

(b) Find the coordinates of the stationary points on the curve. (7)

The curve crosses the  $y$ -axis at the point  $A$ .

(c) Find an equation of the normal to the curve at  $A$ . (3)

The normal at  $A$  meets the curve again at  $B$ .

(d) Find the  $x$ -coordinate of  $B$ . (4)





**Question 9 continued**

A large rectangular area with rounded corners, containing 25 horizontal dotted lines for writing.







**Question 10 continued**

A large rectangular area with rounded corners, containing 25 horizontal dotted lines for writing.



