7 (a) Solve

$$5p^2 - 11p + 2 = 0$$

(2)

(b) Hence solve $5\left(3^{2x}\right) - 11\left(3^{x}\right) + 2 = 0$ giving your answers to 3 significant figures.

(4)

The curve with equation $y = 5\left(3^{2x}\right) - 6\left(3^{x}\right)$ intersects the curve with equation $y = 5\left(3^{x}\right) - 2$ at two points.

(c) Find the coordinates of each of these two points, giving your answers to 3 significant figures where appropriate.

(4)

Question 7 continued

(Total for Question 7 is 10 marks)