2. **In this question you must show all stages of your working.**

Solutions relying on calculator technology are not acceptable.

Given that $x = 2 + 3i$ is a root of the equation

$$2x^4 - 8x^3 + 29x^2 - 12x + 39 = 0$$

(a) write down another complex root of this equation.

(1)

(b) Use algebra to determine the other 2 roots of the equation.

(4)

(c) Show all 4 roots on a single Argand diagram.

(2)

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Question 2 continued

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Question 2 continued

(Total for Question 2 is 7 marks)