爱德思

Further Pure Mathematics 1

分类真题

2014-2022 册

A Level Clouds 出品

目录

Chapter 1

Complex Numbers

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blank

4. $$f(x) = x^4 + 3x^3 - 5x^2 - 19x - 60$$

   (a) Given that $x = -4$ and $x = 3$ are roots of the equation $f(x) = 0$, use algebra to solve $f(x) = 0$ completely.

(7)

   (b) Show the four roots of $f(x) = 0$ on a single Argand diagram.

(2)

7. (i) Given that

$$\frac{2w - 3}{10} = \frac{4 + 7i}{4 - 3i}$$

find w, giving your answer in the form $a + bi$, where a and b are real constants.
You must show your working.

(4)

(ii) Given that

$$z = (2 + \lambda i)(5 + i)$$

where λ is a real constant, and that

$$\arg z = \frac{\pi}{4}$$

find the value of λ.

(4)