Roots of Polynomials

Example 1: Find the quadratic equation with roots α = 2+ 4i and β = 2 – 4i in the form $x^{2}+ax+b=0$

(2 Methods)

Roots of Quadratics

Example 1: Find the quadratic equation with roots α = 2+ 4i and β = 2 – 4i in the form $x^{2}+ax+b=0$

(2 Methods)

Example:

Find the quadratic equation with roots α = 2+ 4i and β = 2 – 4i in the form $x^{2}+ax+b=0$

(2 Methods)

[Textbook] Given that $α=7+2i$ is one of the roots of a quadratic equation with real coefficients,

(a) state the value of the other root, $β$.

(b) find the quadratic equation.

Proof that Complex Roots Appear in Complex Pairs

Proof 1

Example 1: Find the quadratic equation with roots α = 2+ 4i and β = 2 – 4i in the form $x^{2}+ax+b=0$

(2 Methods)

Proof 2

Example 1: Find the quadratic equation with roots α = 2+ 4i and β = 2 – 4i in the form $x^{2}+ax+b=0$

(2 Methods)

Test Your Understanding

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