켤레복소수의 해에 관한 정리 (The Complex Conjugate Root Theorem)





The Complex Conjugate Root Theorem



The Complex Conjugate Root Theorem $f(x) = a_n x^n + a_{n-1} x^{n-1} + \cdots + a_0$



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If f(x) is a polynomial



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If f(x) is a polynomial with real coefficients



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If f(x) is a polynomial with real coefficients, and z is a root



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If f(x) is a polynomial with real coefficients, and z is a root of f(x) = 0



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= a_n(\overline{z})^n + a_{n-1}(\overline{z})^{n-1} + \dots + a_0 \quad (\because a_i \in \mathbb{R})
= f(\overline{z})
\therefore f(\overline{z}) = 0$$

Github:

https://min7014.github.io/math20210127001.html

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