

Algebra II Trigonometry Honors Big Idea Chapter 4 Notes Part II

Lesson 105 | Algebra II | Polynomial zeros and division • Factoring polynomials

https://www.youtube.com/watch?v=pwoSq_xQXns

Related review: exact coverage needs teacher confirmation.

Name: _____ Date: _____ Show your reasoning.

01

Find every real and complex zero: $x^2 + 5x - 126$.

02

Factor completely over the real numbers: $x^3 - 5x^2 + 9x - 45$.

03

Find every real and complex zero: $x^4 - 205x^2 + 1764$.

Algebra II Trigonometry Honors Big Idea Chapter 4 Notes Part II

Lesson 105 | Algebra II | Polynomial zeros and division • Factoring polynomials

https://www.youtube.com/watch?v=pwoSq_xQXns

Related review: exact coverage needs teacher confirmation.

Name: _____ Date: _____ Show your reasoning.

04

Factor completely over the real numbers: $x^2 - 5x - 66$.

05

Find every real and complex zero: $x^3 - 13x^2 + 25x - 325$.

06

Factor completely over the real numbers: $x^4 - 160x^2 + 2304$.

Algebra II Trigonometry Honors Big Idea Chapter 4 Notes Part II

Lesson 105 | Algebra II | Polynomial zeros and division • Factoring polynomials

https://www.youtube.com/watch?v=pwoSq_xQXns

Related review: exact coverage needs teacher confirmation.

01

Find every real and complex zero: $x^2 + 5x - 126$.

Factorization: $(x - 9)(x + 14)$. Zeros: -14, 9.

02

Factor completely over the real numbers: $x^3 - 5x^2 + 9x - 45$.

Factorization: $(x - 5)(x^2 + 9)$. Expand the factors to check the original expression. Quadratic factors with negative discriminant remain irreducible over the reals.

03

Find every real and complex zero: $x^4 - 205x^2 + 1764$.

Factorization: $(x - 14)(x - 3)(x + 3)(x + 14)$. Zeros: -14, -3, 3, 14.

Algebra II Trigonometry Honors Big Idea Chapter 4 Notes Part II

Lesson 105 | Algebra II | Polynomial zeros and division • Factoring polynomials

https://www.youtube.com/watch?v=pwoSq_xQXns

Related review: exact coverage needs teacher confirmation.

04

Factor completely over the real numbers: $x^2 - 5x - 66$.

Factorization: $(x - 11)(x + 6)$. Expand the factors to check the original expression. Quadratic factors with negative discriminant remain irreducible over the reals.

05

Find every real and complex zero: $x^3 - 13x^2 + 25x - 325$.

Factorization: $(x - 13)(x^2 + 25)$. Zeros: 13.

06

Factor completely over the real numbers: $x^4 - 160x^2 + 2304$.

Factorization: $(x - 12)(x - 4)(x + 4)(x + 12)$. Expand the factors to check the original expression. Quadratic factors with negative discriminant remain irreducible over the reals.