

Polynomials - Definitions and Degree

Chapter 2: Polynomials · Topic 1

Key Concept

Polynomials are classified by degree: degree 0 (constant, like 5), degree 1 (linear, like $2x+3$), degree 2 (quadratic, like x^2+1), and degree 3 (cubic, like x^3-2x). They are also classified by the number of terms: monomial (1 term), binomial (2 terms), and trinomial (3 terms). This classification system helps mathematicians communicate precisely about different types of polynomials and choose appropriate methods for solving equations or graphing them based on their degree and structure.

Quick Revision Notes

- A polynomial has terms with non-negative integer powers of variables.
- Degree = highest power of the variable in the polynomial.
- Classification by degree: constant (0), linear (1), quadratic (2), cubic (3).
- Classification by terms: monomial (1 term), binomial (2 terms), trinomial (3 terms).

Practice Questions

- 1 Identify the degree of the polynomial $7x^2-3x+2$.
- 2 Classify x^2+3x+2 by its degree and number of terms.
- 3 Give an example each of a monomial, binomial, and trinomial.