

**Algebra 2**  
**Chapter 4: Polynomial Functions**  
**Outline**

**VOCABULARY**

- Complex Conjugate
- End Behavior
- Local Maximum
- Local Minimum
- Multiplicity
- Pascal's Triangle
- Roots
- Synthetic Division
- Zeros

**SECTIONS**

- Section 4.1: Graphing Polynomial Functions
- Section 4.2: Adding, Subtracting, & Multiplying Polynomials
- Section 4.3: Dividing Polynomials
- Section 4.4: Factoring Polynomials
- Section 4.5: Solving Polynomial Functions
- Section 4.6: Fundamental Theorem of Algebra
- Section 4.7: Transformations of Polynomial Functions
- Section 4.8: Analyzing Graphs of Polynomial Functions

**LEARNING TARGETS**

- 4a. Understanding of how to add, subtract, multiply, and divide polynomials.
- 4b. Understanding of how to use Pascal's Triangle to expand polynomial functions.
- 4c. Factor polynomial functions by graphing, grouping, and quadratic techniques.
- 4d. Solve polynomial functions by graphing and factoring.
- 4e. Understanding of polynomial functions, including end behavior, degree, local maximum and minimum, multiplicity, determining if a function is odd or even, and graphing polynomial functions.
- 4f. Write polynomial functions when given factors or graphs.
- 4g. Describe and write polynomial functions given transformations on parent the functions.

**ASSESSMENTS**

- Tuesday, 2/23 → Quiz 4A
- Friday, 3/18 → Chapter 4 Test