

| HPISD Curriculum: Algebra II | | | | | | | | |
|---|--|---|-----------------------|---|---|---|---|---|
| Title | | Estimated Duration | 6 Weeks | | | | | |
| Unit 8: Polynomials | | 2 weeks | 1 | 2 | 3 | 4 | 5 | 6 |
| Unit Overview | | | | | | | | |
| Solving and graphing polynomial functions as well as solving real world problems. | | | | | | | | |
| Enduring Understandings | | | | | | | | |
| The student will understand that: | | <ul style="list-style-type: none"> •The degree of the polynomial is the number of solutions. •The graph of the polynomial represents all real and imaginary roots. •Polynomials are used to represent real world situations. | | | | | | |
| Concepts | Guiding/Essential Questions | | | | | | | |
| <ul style="list-style-type: none"> • Polynomials | <ul style="list-style-type: none"> • How is the degree of the polynomial related to the number of roots? • How is the degree of the polynomial related to the graph? • How are polynomials used to model real world situations? • What methods can be used to solve polynomials? | | | | | | | |
| Learning Targets | | | | | | | | |
| <ul style="list-style-type: none"> • Students will develop and apply methods of solving polynomials. • Students will sketch polynomials from given functions. | | | | | | | | |
| Formative Assessments | | | Summative Assessments | | | | | |
| Quizzes and assignments | | | test | | | | | |

| TEKS: Readiness Standards | TEKS: Related Supporting Standards |
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| <p>A2.1.A identify the mathematical domains and ranges of functions and determine reasonable domain and range values for continuous and discrete situations</p> | <p>A2.2.A use tools including factoring and properties of exponents to simplify expressions and to transform and solve equations</p> |
| Processes and Skills: What students should be able to DO | Facts: What students should KNOW |
| <ul style="list-style-type: none"> • Factor a polynomial • Solve a polynomial function • Graph a polynomial function • Solve applications involving polynomial functions | <ul style="list-style-type: none"> • The degree of the polynomial is the same as the number of solutions to the polynomial. • If the degree of the polynomial is even, the end behavior is the same. • If the degree of the polynomial is odd, the end behavior is different. |
| Topics | |
| Polynomials | |
| Language of Instruction | |
| End behavior Remainder Theorem | Degree of a polynomial Factor Theorem |
| State Assessment Connections | National Assessment Connections |
| | |
| Resources | |
| McDougal Littell – Algebra 2 Supplemental material | |