

Algebra 2  
Chapter Four Outcomes and Homework

**OUTCOMES:**

At the end of Chapter Four, each student should be able to do the following:

- Graph the basic shapes of polynomials using key characteristics
- Divide polynomials using synthetic and long division
- Solve polynomial equations using its potential rational roots, Fundamental Theorem of Algebra and complex roots
- Understand and use the connection between factorization,  $x$ -intercepts and solutions
- **Graph rational functions, giving the appropriate asymptotes**

**HOMEWORK:** (Bold is honors only, underlined is regular only)

- Intro to Graphing Polynomial Worksheet
- 4-1 # 5 – 10 all, 13, 15, 17, 19, **21**, 23, 27, 33, 45, 77, 79, **81**
- 4-2 # 1, 9, 11, 13, 17, 25, 31, 41, 49, 57, 59, 63, 65, **67**, **68**
- 4-3 # 7, 9, 15, 19, 29, **35**, 41, **45**, 53
- 4-3 # 55, 79, 85, 93, 95 (you may use your calculator for this), **100**  
pg 135 # 55, 65, 69, 85
- 4-4 # 13, 17, 25, 29, 31, 33, 37, **39**, 43, 47, **49**, **55**, **67**
- **4-5 # 11, 13, 17, 21, 33, 39, 45, 77, 79**