

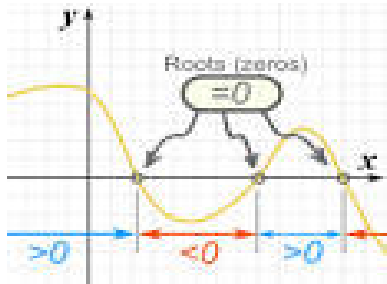
Week 13/14
Term 2
2024



Goals

This week:

- Graphing higher powers of polynomials from factorised form
- Types of roots, shapes of functions, intercepts, odd and even powered functions
- Polynomial algebra
- Polynomial long division



Theoretical Components

Make notes on the following chapters:

- 2B Polynomials
- 3B Long division of polynomials
- 3D The remainder and factor theorems
- 3E Factorising polynomials
- 3G Solving polynomial equations
- 3H Cubic graphs - intercept method
- 3I Quartic graphs - intercept method
- 3K Domain, range, maximums and minimums

Knowledge checklist:

- Polynomials – what are they?
- Extrema Values – know how to identify extrema behaviour by looking at the polynomial functions
- Algebraic skills of factorising, to get polynomials into fully factorised forms so you can solve and identify roots
- Polynomial long division is an essential algebraic skill
- Once you have found the roots, be able to identify their behaviour
- From fully factorised form be able to sketch polynomials of degree 3 and higher

Practical Components

Do the following questions:

Organise your solutions neatly in your exercise book.

You will require Chapter 2 and 3 of Maths Quest 11 Mathematical Methods (pdf – Google Classroom)

- 2A: All
- 3B: 1a, c, k, 5a, c
- 3D: 2a, b, 5, 6a, e
- 3E: 2a, d, g, j
- 3G: 1-5 (three from each)
- 3H: 1-4 (three from each), 5, 7
- 3I: 1, 2, 8
- 3K: 1, 5

Investigation

None for this fortnight – work on the assignment due Week 15 (Monday 20/05/24, 4pm)

QFO

Quiz/Forum/Other

Work on your assignment 😊