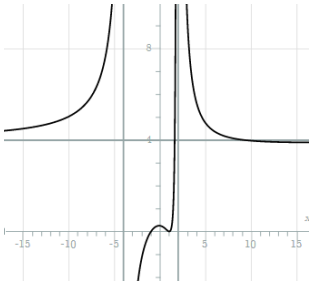
Week 09/10
Term 1
2024

HAWKER COLLEGE
Engage | Inspire | Achieve

Learning Brief
SM3

Goals



By the end of this unit, students will:

- understand the concepts and techniques in vectors, complex numbers, functions, and graph sketching
- apply reasoning skills and solve problems in vectors, complex numbers, functions, and graph sketching
- communicate their arguments and strategies when solving problems
- construct proofs of results
- interpret mathematical information and ascertain the reasonableness of their solutions to problems.

This week:

- Revision
- Exam

Theoretical Components

WK01/02:

- Conversion of cartesian to polar form
- De Moivre's theorem for integer powers

WK03:

- Graphing rays, circles/ellipses, regions

WK04:

- Roots of unity
- Roots of complex numbers
- Factorisation of polynomials

WK05:

- Composition of functions, domain and range
- Inverse of a function

WK06/07:

- Graphing rational functions with asymptotic behaviour

WK08:

- Vectors – addition/subtraction, geometrical proofs.

Practical Components

Summary Sheet: double-sided (A4 size), handwritten.

Check Google Classroom for test revision.

Investigation

None this week.

Q/F/O
Quiz/Forum/Other

Additional Reading (optional):
Graphs of quartic and quintics
https://www.pearsonhighered.com/assets/samplechapter/0/1/3/4/0134862201.pdf