

Goals

Test week

At this stage students should be able to:

- differentiate polynomial and simple rational functions;
- use the second derivative to investigate changes in concavity;
- use calculus to confirm critical features of the graphs of polynomial and simple rational functions;
- solve problems using differential calculus.



Theoretical Components

The test consists of the following parts

Differentiation

- what is a gradient function?
- what is the x-intercept of a gradient function?
- power rule

Properties of Curves

- finding gradient functions by rule
- curve components – y intercepts, roots, equations of tangents and normal, increasing, decreasing, concavity
- identify and classify stationary points
- second derivative
- using second derivative to identify concavity
- points of inflection – including stationary PI
- sketching graphs

Problem Solving Using Calculus

- solve maximum and minimum
- rates of change
- using calculus to solve rate problems
- related rates
- solve worded and contextual problems

AST type question

Practical Components

There is a revision quiz. You can redo (or do them if you haven't already) the Mathspace tasks as this is good practice for the test.

Important: Make sure are confident in using your CAS. You can use CAS unless otherwise indicated in the question.

See Toby if you would like any help with this.

Week 16 Revision

You are required to complete:

- Monday lecture
- At least - 1hr of face to face maths in learning commons
- prepare an A4 double sided, hand written summary sheet for the test – to be handed in with the test.
- get all investigations up to date –all in folder to be handed in at the Test for Moderation.

Investigation

Get Summary sheet and Investigations Folder complete

Quiz

There is a MC quiz in Google Classroom