Lecture 15: Worksheet

Checklist

Make a list of the most important definitions and a list of the most important results in this course.

Functions

Make a list of the most 10 most important functions and make sure you can plot them.

Function values

Make sure you know values like $\exp(0), \exp(1), \log(1), \sin(0) \cos(0), \sin(\pi/2),$

Derivatives

Make sure you know how to derive derivatives of inverse functions like $\arctan(x), \arcsin(x)$ or $\log(x)$.

Produce your own mind map of the course. Here are some starting points.

Roots

Discontinuity

Functions

Algebra

Continuity

Calculus

Differentiation

Limits

Integration

Extrema

Calculus

Roots
- Solve
- Newton

Discontinuity
- Jump
- Oscillation
- Infinity

Functions
- exp
- sin
- cos
- tan
- log

Continuity
- Intermediate value
- Fermat

Differentiation
- Quotient
- Product
- Chain
- Addition

Integration
- Summation

Limits
- Simplify
- Hopital
- Heal

Extrema
- Second deriv Test
- local maxima
- Global maxima