What to Know for the Final Exam

15 written questions (54 marks)

<u>TOPICS</u>

- Limits – as x approaches a number and as x approaches $\pm\infty$
- Prove if a function is continuous or not (including from the left or right, removable and non-removable)
- Derivatives (product rule, quotient rule, chain rule, implicit, trig (no inverse trig), exponential and logarithmic)
- Find equation of a tangent line at a point.
- Local linear approximation
- Related rates
- Increasing/decreasing, concave up/down, inflection points.
- Relative maximum and minimum
- Absolute maximum and minimum
- Integration (including by substitution)
- Position, velocity and acceleration problems.
- Displacement and total distance travelled
- Differential equations.