

MATH 1634, Review for Hour Exam 2

- The exam will be on the materials covered in Sections 3.1–3.9.
 - The formulae that you have to know to solve Related Rates are the ones in the examples done in class, in homeworks, or something very basic (such as the circumference of a circle or the volume of a box). **Make sure you know all those formulae. No excuse that you didn't know the necessary formulae to solve a problem in related rates.**
1. Finding the derivatives $\frac{dy}{dx}$ or $\frac{d^2y}{dx^2}$ using differentiation formulae.
 - x^n, e^x §3.1, 3.2
 - product rules, quotient rules §3.2
 - trigonometric functions §3.3
 - the chain rule §3.4
 - implicit differentiation §3.5
 - logarithmic function §3.6
 2. Finding an equation of a tangent line. §3.1– 3.6
 3. Related rates §3.9: The problems will be asked (a),(b),... as discussed in class and as seen in quiz 5.

Remind you of our class policy for the missing exam:

- *Remember the policy in case you fall sick: You must write me an email **BEFORE** the exam – **no excuse!** If you fail to do so, there will be penalty.*
- *If you are late for the exam, I interpret that you do so at your own risk. There won't be any way to make up your lost time.*