

MATH 150

Today

1. Go over exam (briefly)
2. 2.1-2.2: Derivatives
3. Homefun

Goals:

1. Intuitive understanding of the derivative (understand what the derivative represents)
2. Definition of the derivative (understand the formal definition of the derivative)

Where is today's material used?

1. Derivatives appear in all of the sciences (physics, chemistry, biology, ...)
2. Economics (marginal cost/revenue/profit)

Chapter 2: Derivatives

1. Slopes of secant lines over small intervals and average rate of change.
2. Formal definition of the derivative and tangent lines.
3. **Theorem:** Differentiable functions are also continuous.
4. Local linearity and equations of tangent lines.
5. Derivative notations.
6. Newton's Method (time permitting)
7. Examples. p. 172: 25, 26, 30, 42, 46

8. Examples: p. 191: 23-32, 37, 39, 55, 61

Next Time

1. Watch Section 2.3 [27 min]