Single Variable Calculus Notes for Lecture 3

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1 Derivation Formulas

This lecture and future lectures will be giving two types of formulas. The first type are specific formulas. They give formulas for speciific functions. The second type are general formulas. They give formulas for a greater number of functions at the same time.

1.1 Some Examples of General Formulas

Example 1:

$$(u+v)' = u' + v'$$

The Constant Multiple Rule

$$(cu') = cu'$$

This says that the slope will be scaled by the constant c at evey point. Since the slope is always being multiplied by this constant this seems to be a trivial assertion.

$$(uv)' = v'u + u'v$$

$$(u/v)' = \frac{u'v - v'u}{v^2}$$