

## Math 110 (Section 002) Learning Objectives

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*Students should be able to do the following things by the end of each respective unit. Additions may be made as the term progresses.*

### **Implicit Differentiation**

1. Find  $\frac{dy}{dx}$  using implicit differentiation, given a curve  $f(x, y) = g(x, y)$  composed of simple functions.
2. Justify the technique of implicit differentiation using chain rule.
3. Use logarithmic differentiation to differentiate products of functions, quotients of functions or functions with variables in both the base and the exponent (such as  $x^x$ ).