Section 3.3

1. You should be able to derive the derivatives of the following functions using only that fact that \( \lim_{\theta \to 0} \frac{\sin(\theta)}{\theta} = 1 \).
   
   (a) \( \sin(x) \)
   
   (b) \( \cos(x) \)
   
   (c) \( \sec(x) \)
   
   (d) \( \csc(x) \)
   
   (e) \( \tan(x) \)
   
   (f) \( \cot(x) \)

2. Write answers to the following questions in your notebook. (Wed Oct 16)
   Find the derivatives of the following functions.
   
   (a) \( \sin(x) \cos(x) \)
   
   (b) \( 2x^2 \sin(x) \)

Homework

(a) WebAssign Problems: See WebAssign HW7

(b) Hand-Written Problems to turn in: 3.3: 17 Due 10/23