

Math 2, Winter 2016

WEEKLY HOMEWORK #2 — DUE FRIDAY, JANUARY 15  
*Revised Version*

*Textbook problems:*

Section 3.1: 50, 67.

Section 3.2: 10.

Section 3.3: 20, 33.

*Also do the following problem:*

Let  $f(x) = \sin(x)$ .

- (a) Graph  $f$  on the interval  $[0, 4\pi]$ .
- (b) What is  $f'(x)$ ?
- (c) Graph  $f'$  on the interval  $[0, 4\pi]$ .
- (d) Find the local minima and local maxima of  $f$  on the interval  $[0, 4\pi]$ . (Give the  $x$  and  $y$  coordinates of each one.)
- (e) Find the inflection points of  $f$  on the interval  $[0, 4\pi]$ . (Give the  $x$  and  $y$  coordinates of each one.)