Name: Sec. 4.2 – Mean Value Theorem Math 251

1. Show that for  $f(x) = 1 - x^{2/3}$  we have f(-1) = f(1) but there is no c such that f'(c) = 0. Why does this not contradict Rolle's Theorem?

2. Show that  $f(x) = 2x + \cos x$  has exactly one root on (-1, 1)