

Correction to #2 on PS2

It is almost, but not quite, true that  $f$  is a contraction mapping on  $I$  as defined. (Why not?) Show however that there is an  $\epsilon > 0$  such that  $f$  is a contraction mapping on  $I = [1/2 + \epsilon, f(1/2 + \epsilon)]$ . (In fact this will be true for any sufficiently small  $\epsilon$ ).