ECO137 Quiz 3 Nov. 10. 2017

ID: Name:

1. For $f(x) = \sqrt{5x + 25}$,

(a) Find the inverse function.

(b) Draw a figure with the original and the inverse functions.

(c) Derive the point where the original and inverse functions intersect.

2. For $f(x) = -\frac{1}{3}x^3 + \frac{1}{2}x^2 + 2x + 5$,

(a) Examine where the function is increasing/decreasing.

(b) Identify y-intersect, the extreme points (local minimum/maximum) and draw the approximate shape of the function. You do not need to derive the roots.