MATH 371-03 (181)
HW # 3
Due Oct. 2, 2018

Q1. For each of the following fixed-point problem $g(x)$ find an equivalent root-finding problem $f(x)$. Does the fixed point iteration converges to the indicated fixed point p, if we start sufficiently close to p? Why?

(a) $g(x) = -16 + 6x + \frac{12}{x}$ $\qquad p = 2$

(b) $g(x) = \frac{2}{3}x + \frac{1}{x^2}$ $\qquad p = 3^{\frac{1}{3}}$

(c) $g(x) = \frac{12}{1+x}$ $\qquad p = 3$