Quiz 9   Name: _____ Key _____
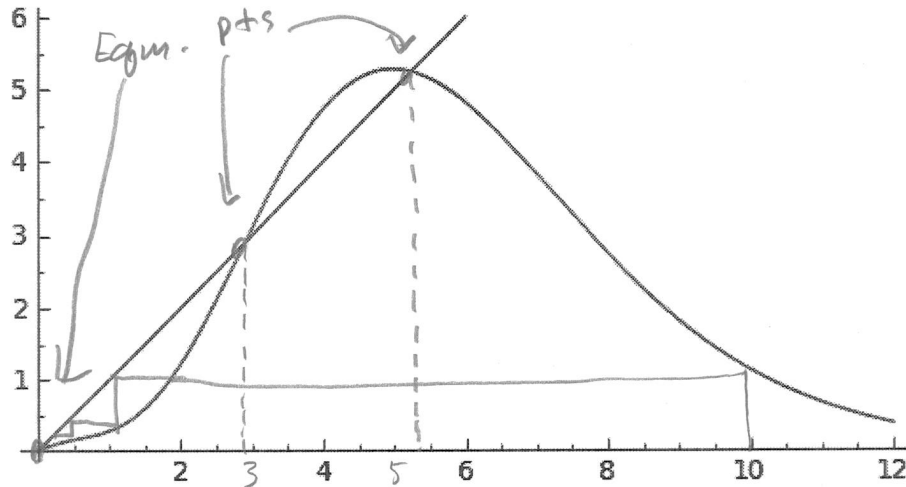
You must show your work to get full credit.

A discrete dynamical system is given by

$$N_{t+1} = f(N_t)$$

where the graph if f is given by

(1) Estimate the equilibrium points?

Equilibrium points are: __0, 3 , 5.4__

(2) Which of the equilibrium points are stable?

Stable equilibrium points are: ___0, 5.4___

(as | slope | < 1

(3) If $N_0 = 10$ estimate N_{500}.

$$N_{500} \approx \quad 0$$