1. A population P_t of mussels reproduces annually with an intrinsic rate of increase r of 3%. Harvesting removes $h = 60$ tons a year.
   a.   Write the updating equation for this discete process; that is write P_{t+1} in terms of P_t and numbers.

   b.   Is there an equilibrium value for this population? If so, compute it.
        Yes   No   value: _____

   c.   Write the updating equation as you would enter it in your calculator. Hint: It will have the form $u(n) = ($ _____ $)u($ _____ $) \pm h$ or $u(n) = u($ _____ $) + ($ _____ $)u($ _____ $) \pm h$.

   d.   If the population is currently 1000 tons, what will it be in 23 years? in 24 years? How do you interpret what is happening?

   e.   If the population is currently 3000 tons, what will it be in 6 years?

   f.   (Bonus) Is the equilibrium value (assuming that there was one) stable or unstable? Explain, perhaps using a graph to help.