

You must show your work to get full credit.

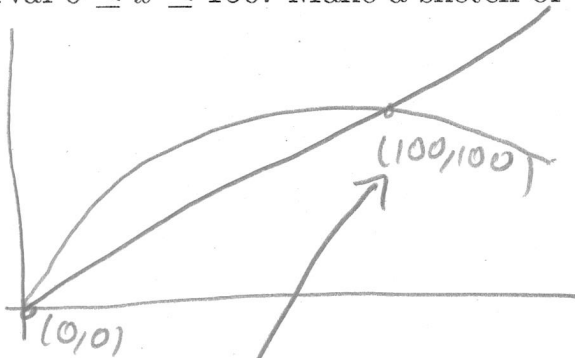
The *Ricker model* for discrete population growth is

$$N_{t+1} = N_t e^{r(1-N_t/K)}$$

where r is in per capita growth rate and K is the carrying capacity. Consider the special case

$$N_{t+1} = N_t e^{1.2(1-N_t/100)}$$

1. Use your calculator to graph both $y = x$ and $y = x e^{1.2(1-x/100)}$ on the same axis on the interval $0 \leq x \leq 150$. Make a sketch of the graph here.



2. What are the equilibrium points?

use 2nd calc intersect.

Equilibrium points are: 0, 100

3. If $N_0 = 70$ estimate N_{50} .

