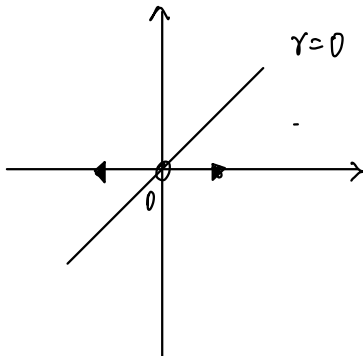
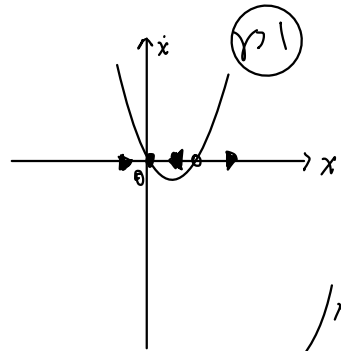
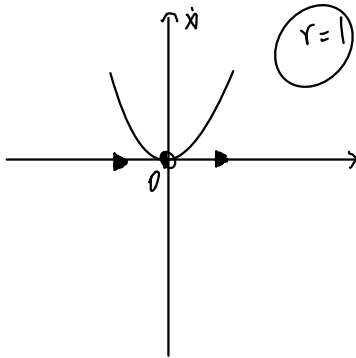
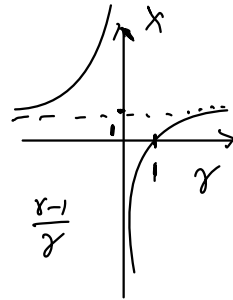


3.2.3 $\dot{x} = x - rx(1-x)$



$$x - rx \mp rx^2 = 0.$$

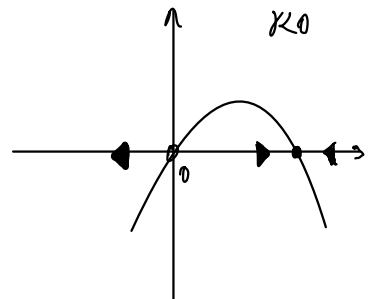
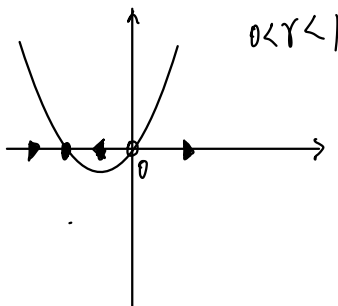
$$x = \frac{r-1}{r}$$



① $r > 1$

② $0 < r < 1$

③ $r < 0$



r gradual coincidence of stability points. from $-\infty$ to 1
then exchange stability after 1