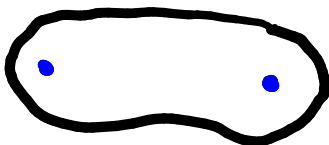




$E_0$



$E_1$



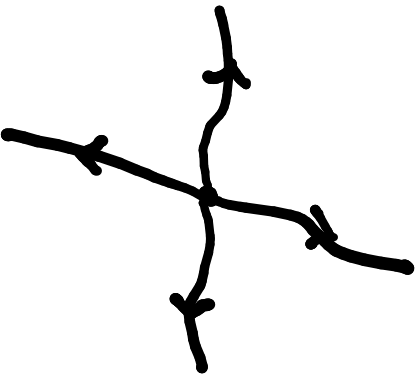
$E_2$



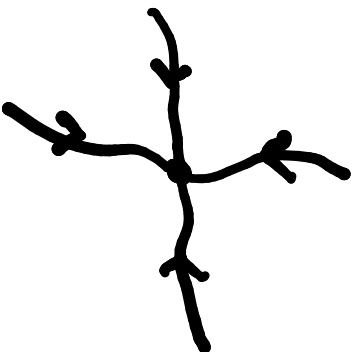
$E_3$



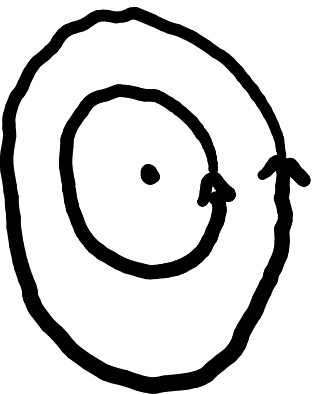
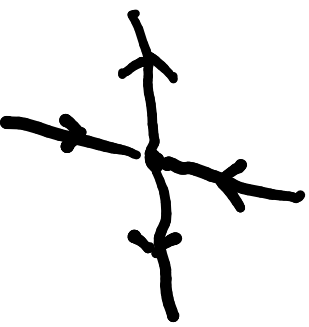
SOURCE



SINK

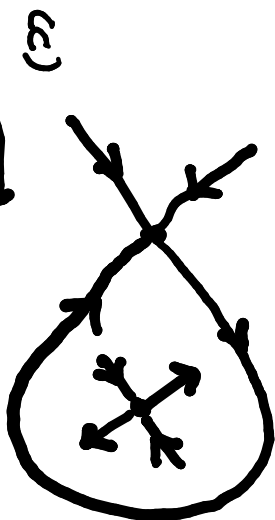


SADDLE

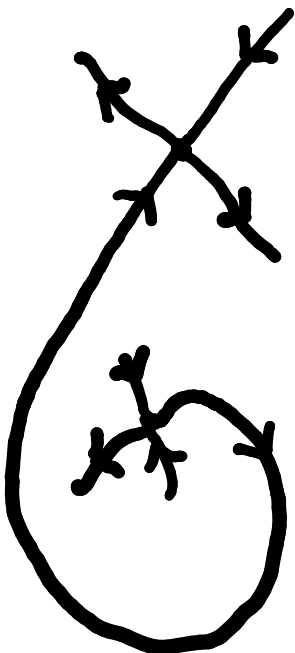


CENTER

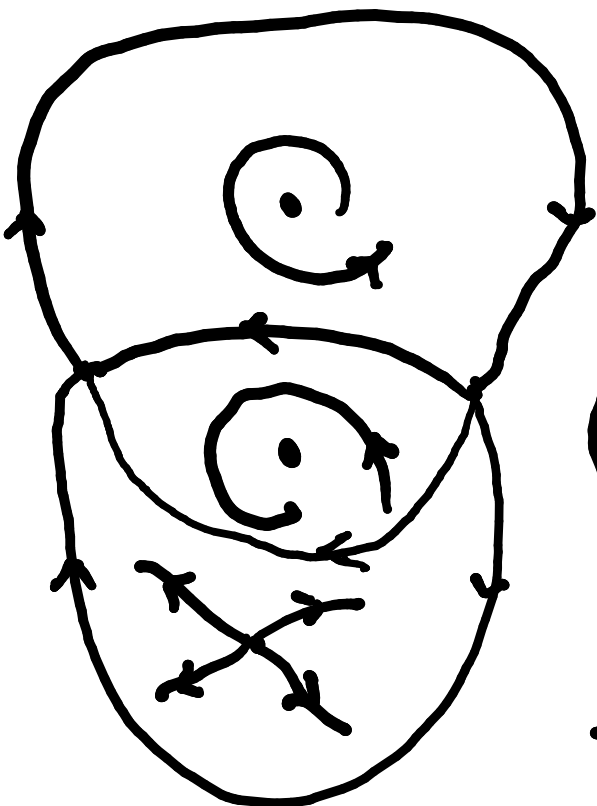
(a)



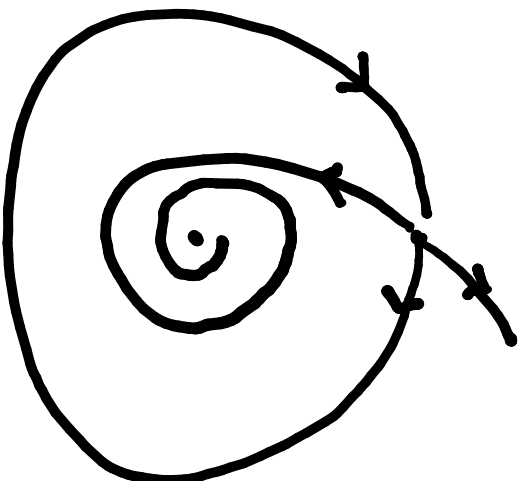
(b)



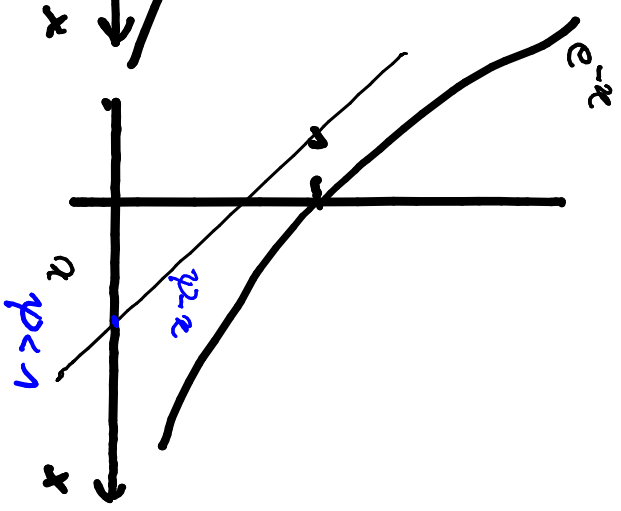
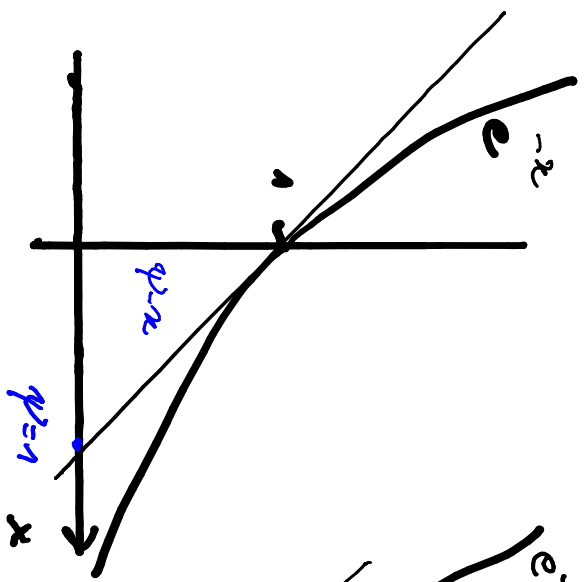
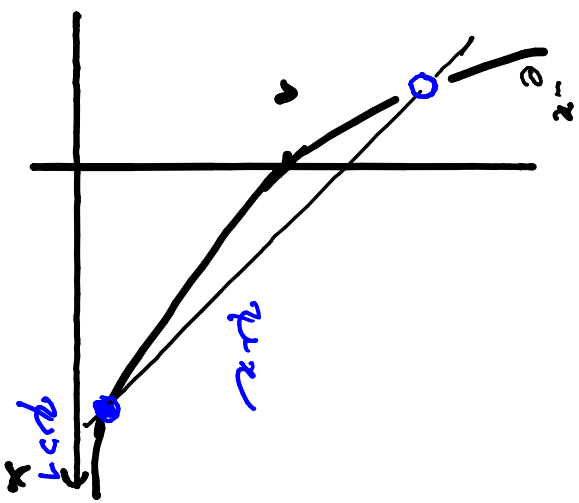
(c)

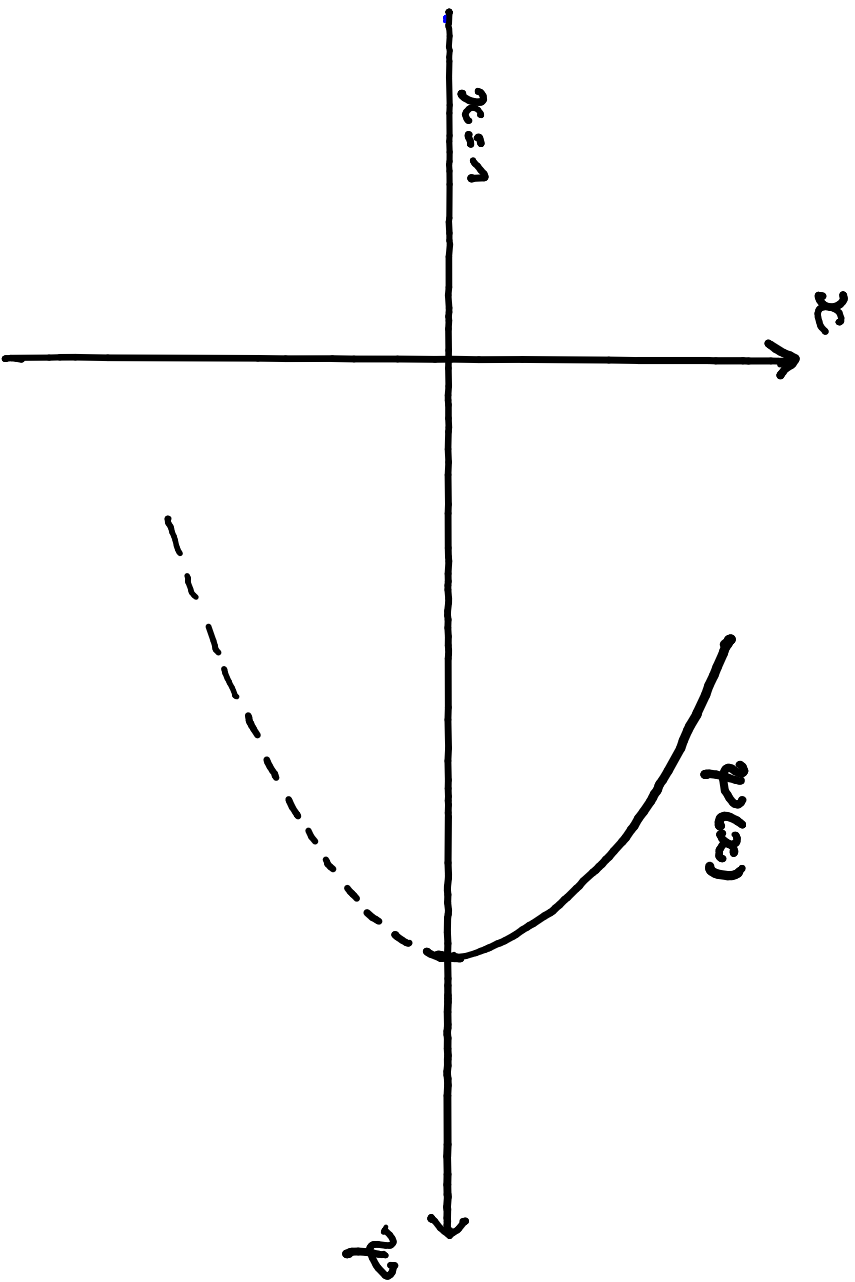


(d)

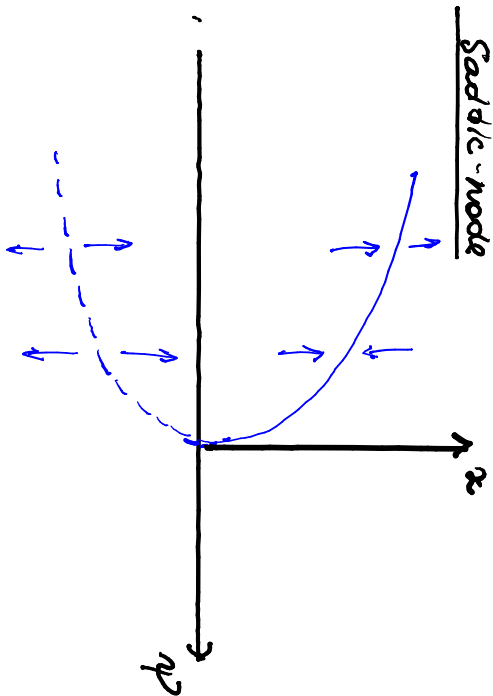






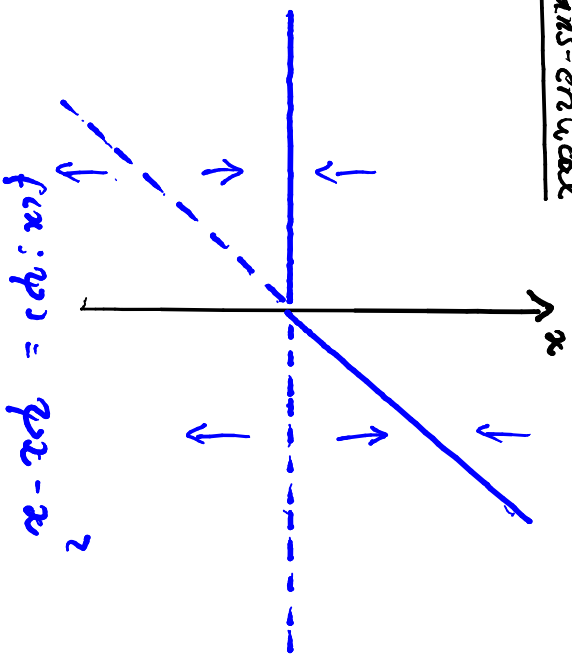


Saddle-node



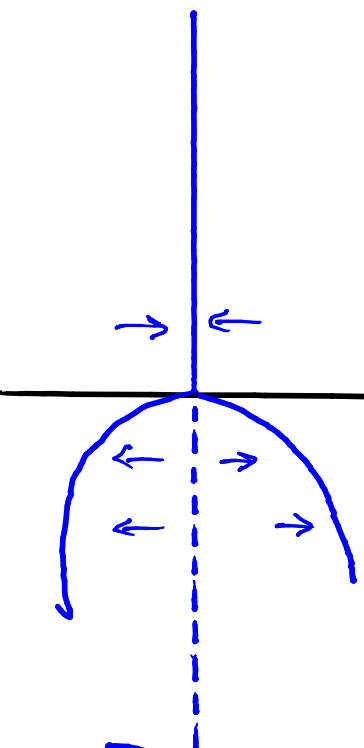
$$f(x; \eta p) = \eta p - \frac{1}{2}x^2$$

Trans-critical



$$f(x; \eta p) = \eta p x - x^2$$

Fork bifurcation



$$f(x; \eta p) = \eta p x - x^3$$