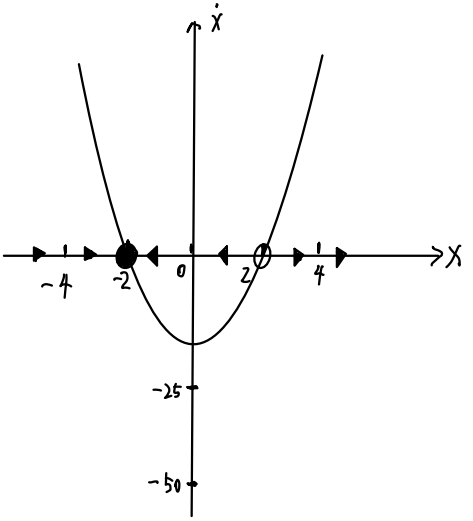

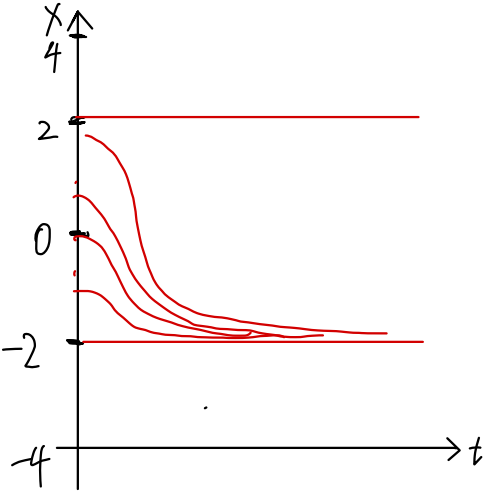

$\therefore x^* = -2$ (stable)

$x^* = 2$ (unstable).

$\dot{x} = 4x^2 - 16.$

$\frac{dx}{dt} = 4x^2 - 16$

$dt = \frac{1}{4x^2-16} dx$

$\int dt = \int \frac{1}{4x^2-16} dx$

$t + c_1 = \frac{1}{16} \log\left(\frac{2-x}{x+2}\right)$

modify:

$x(t) = \frac{-2(e^{4c_1+16t}-1)}{e^{4c_1+16t}+1}$

$x \in [-2, 2]$

$t = \frac{1}{16} \ln\left(\frac{2-x}{x+2}\right)$.