

$$\ddot{x} + p(x)\dot{x} + q(x) = 0$$

$q(x)$ odd & $q(x) > 0$ FOR $x > 0$

$$F(x) = \int_0^x p(u) du$$

$$y = \dot{x}$$

$$\dot{x} = y$$

$$\dot{y} = -p(x)y - q(x)$$

$(0,0)$ EP

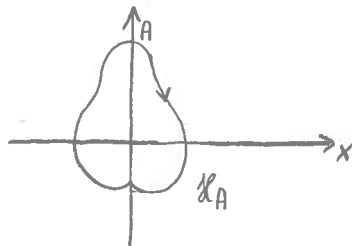
$p(x)$ odd

$p(x) > 0$ FOR $x > 0$

PHASE DIAGRAM
SYMMETRIC WRT y AXIS

$$q(x) > \alpha p(x)F(x) \quad (x > 0)$$

$$\alpha > 1$$



VA ON THE POSITIVE y -AXIS

$(0,0)$ CENTRE