clear all

n= 1.65;%ideality factor

is=220\*10^-12;%diode reverse saturated current

q=1.602\*10^-19;%electron charge

k=1.38\*10^-23;%absolute temperature

t=300;%absolute temperature

fs=1000;

dv=1/fs;

v0=-0.3;%charge as you want

vent=1.1;%charge as you want

vd=v0:dv:vent;

id=is\*(exp((q\*vd)./(1.65\*k\*t))-1);

plot(1000\*vd,id);grid;xlabel('diode voltage in mv');

ylabel('diode current in Amp.')