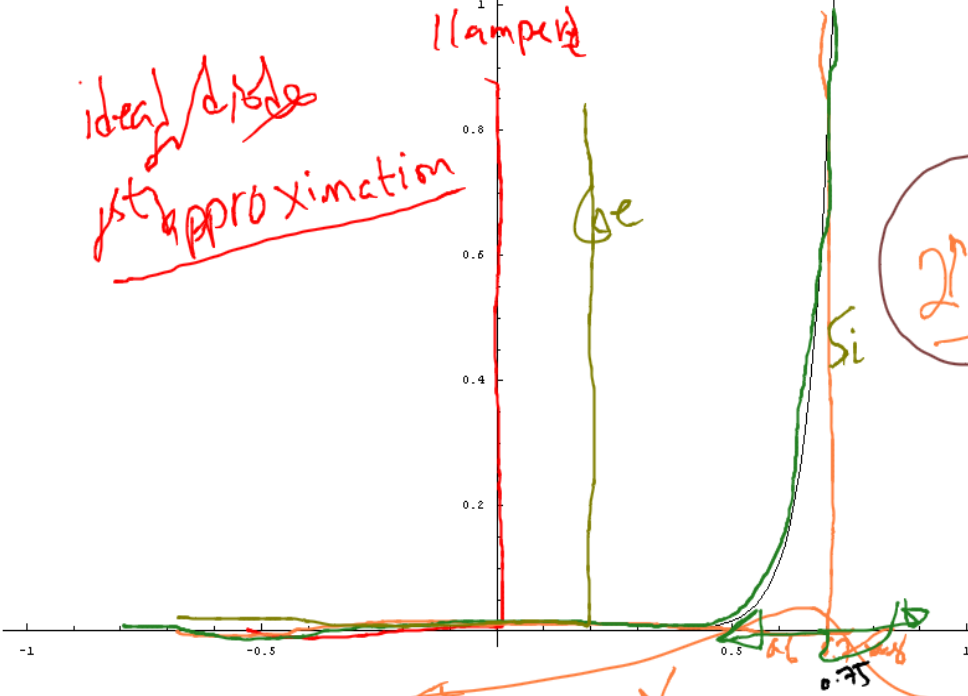


ideal diode
1st approximation

11 amper



2nd approximation
✓
✗

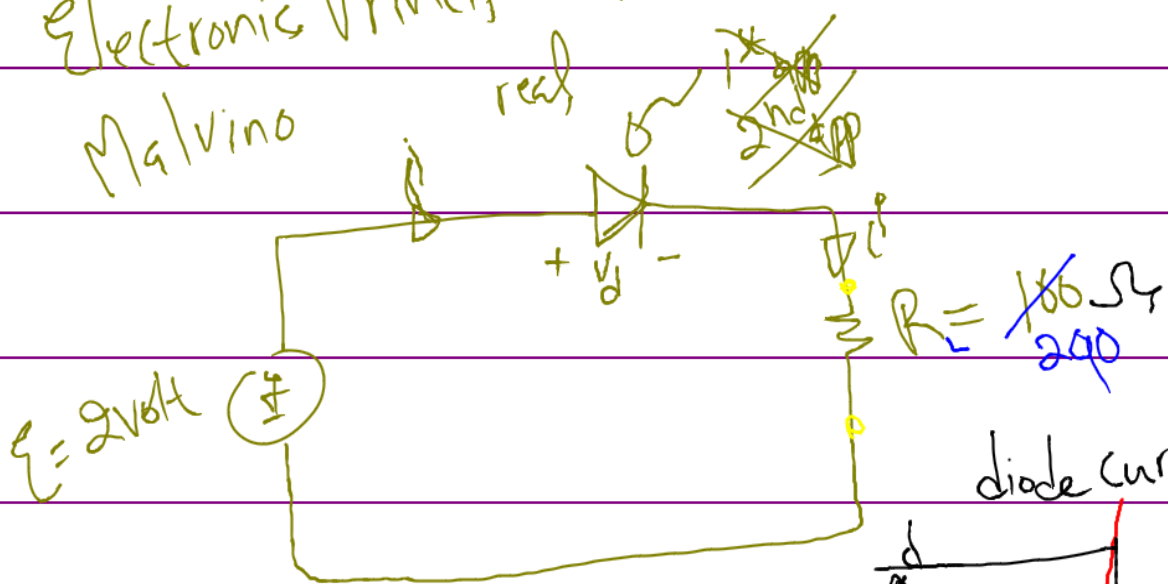
$i(V) = I_s (e^{\frac{V}{nV_T}} - 1)$

$i(V) = I_s (e^{\frac{V}{nV_T}} - 1)$
 $n = 2$
 $V_T = \frac{T}{11500}$

Load Line

analysis of transistor circuits

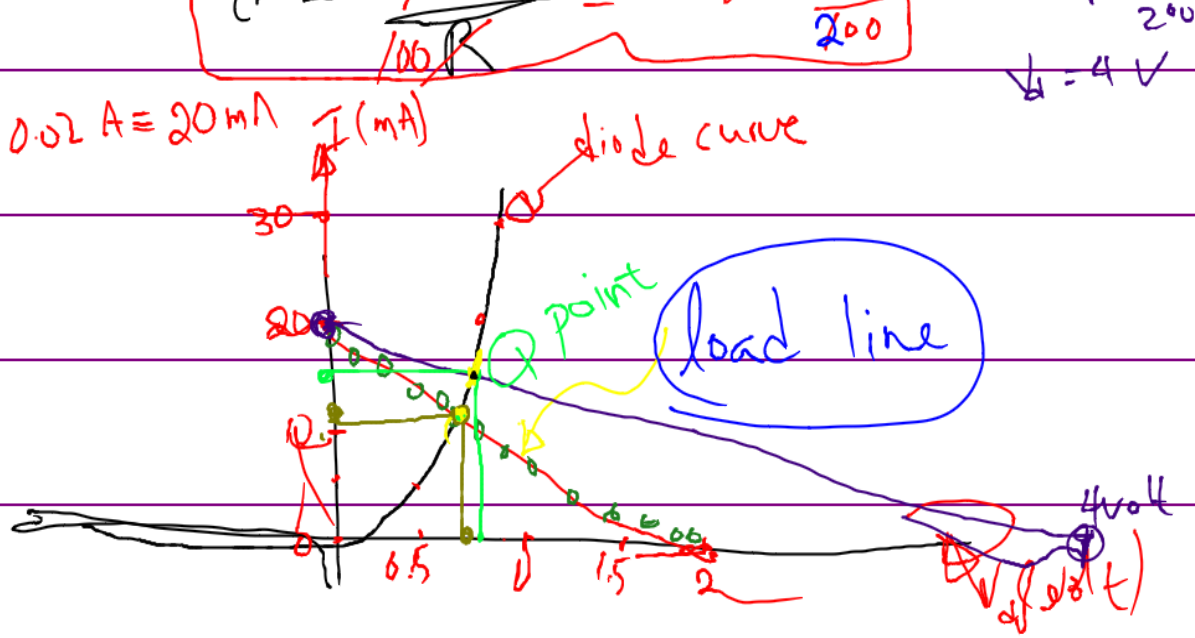
Electronic Principles (6th)
Malvino



circuit equation:

KVL:
 $E - V_d - iR = 0$

$I = 2e^{-\frac{V_d}{nV_T}} - 0.02 - V_d$ $0.025 \frac{V_d}{V_T}$



Quiescent point

نقطة السكون أو الاستقرار

