Chceckpoint A

$I_D = \frac{K_N}{2}(V_{GS} - V_T)^2$ ← MOSFET current equation

$\sqrt{I_D} = \sqrt{\frac{K_N}{2}}(V_{GS} - V_T)$

threshold

voltage between gate & source

$= \sqrt{\frac{K_N}{2}} V_{GS} - \sqrt{\frac{K_N}{2}} V_T$

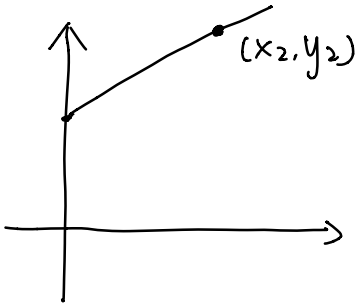
y = x − b

$K_N = \mu C_{ox} \frac{W}{L}$

MOSFET parameter

CheckpointB

Find V_A



$y_2 = m x_2 + b$

$b = y_2 - m x_2$

$V_A = -\frac{b}{m}$

$= \frac{m x_2 - y_2}{m}$

$= x_2 - \frac{1}{m} y_2$

我算得 -87.3

此题会有很大误差

只要会式子即可