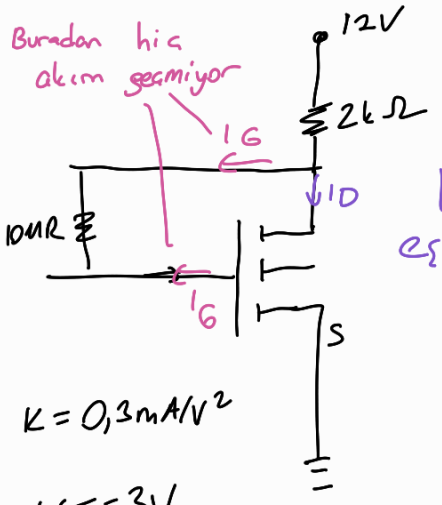
12. hafta



$K = 0,3 mA/V^2$

$V_T = 3V$

$I_G = 0$

$V_S = 0$

$V_G = V_D$ niye ? eşit anlamadım.

$12 - I_D 2k = V_D$

$12 - I_D \cdot 2k = V_G = V_{GS}$

$I_D = \frac{12 - V_{GS}}{2k\Omega}$

$V_{GS} > V_T$ olcak

Seç

$I_D = K(V_{GS} - V_T)^2$

$\frac{12 - V_{GS}}{2k \times 0,3m} = 0,3m (V_{GS} - 3)^2$

$12 - V_{GS} = 3(V_{GS}^2 - 6V_{GS} + 9)$

$\boxed{V_{GS} = 6,128}$ $V_{GS} = -1,795$

$I_D = \frac{12 - 6,128}{2k} = 2,936 mA$