

NMOS - PROBLEM 4.18 MICROELECTRONICS CIRCUIT DESIGN

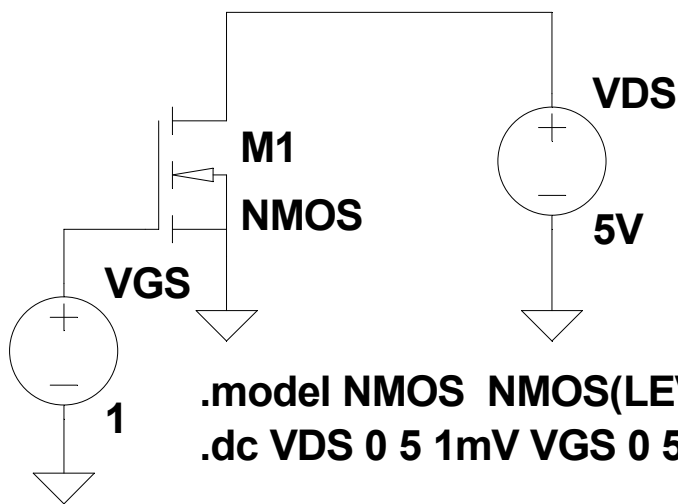
$$V_{TN} = (3\sqrt{395} - 4\sqrt{146}) / (\sqrt{395} - \sqrt{140})$$
$$V_{TN} = 1.5V$$

$$K_N = 2 \cdot 14 \mu A / (1.5)^2$$

$$K_N = 125 \mu A/V^2$$

$$W/L = 1.25/1$$

ENHANCEMENT -MODE $V_{TN} > 0$



```
.model NMOS NMOS(LEVEL=1 KP=125E-6 VTO=1.5 Lambda =0.02)  
.dc VDS 0 5 1mV VGS 0 5 1
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