Lab 6 Pre-lab

(mbreak N4)

Step 1)
$$\sqrt{09} > \sqrt{c_{19}} - \sqrt{\tau_{1H}} \leq stort$$
 $\sqrt{D} - \sqrt{S} > \sqrt{C_{1}} - \sqrt{S} - \sqrt{\tau_{1H}}$
 $\sqrt{D} > \sqrt{C_{1}} - \sqrt{\tau_{1H}}$
 $\sqrt{D} - \sqrt{C_{1}} > -\sqrt{\tau_{1H}}$
 $\sqrt{C_{1}} > -\sqrt{\tau_{1H}}$
 $\sqrt{C_{2}} > \sqrt{\tau_{1H}} > 0$
finish

Other condition: $\sqrt{C_{1}} > \sqrt{\tau_{1H}}$

Step 2)

VG,5	Vos	Io	State	√ _{th} =1.6∨
1∨	3.6125	295.2m	Cutoff	K = 0,00082
2	4.38336	131.2m	triode	
4	-17,199	4.72 m	saturation	
	1V 2V	1V 3.6125 2V 4.38336	1V 3.6125 295.2m 2V 4.38336 31.2m	VGS VOS IO State IV 3.6125 295.2m cutoff 2V 4.38336 131.2m triode 4V -17.199 4.72m Saturation

Showing process for $V_{GS} = 1V$. ($2V \neq 4V$ share some process) $V_{DS} = V_{DD} - I_D R_D = V_{DD} - R_D (K (V_{GS} - V_{TH}))^2$

2: 4.38336>2-1.6 \ 2 \geq 1.6
4:

-17.199>4-1.6 \$ 4 \times 1.6