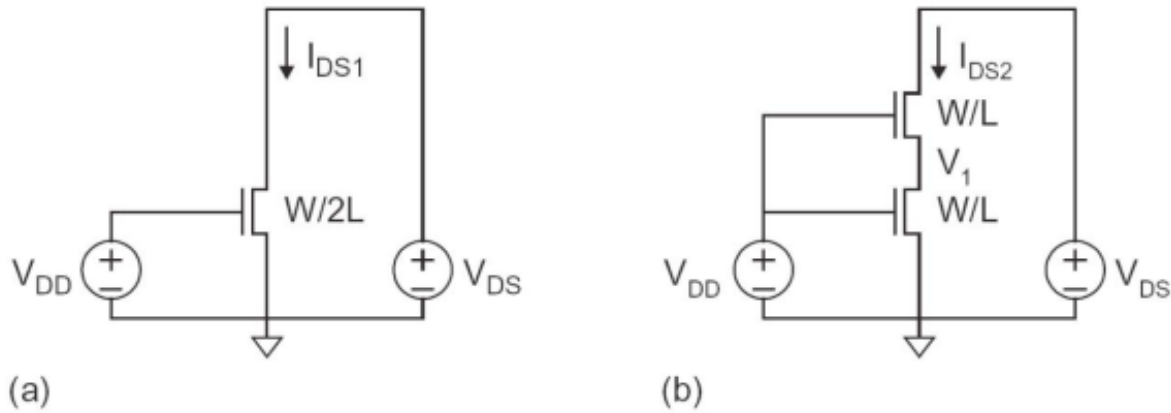


*Problem Set*

Problem #1

Given the following two circuits, implement them using mosistsmc180.mod technology. Simulate and compare the behavior of the two circuits using HSPICE. Make sure to connect the bulk of all nMOS transistors to ground.



**FIGURE 2.32** Current in series transistors

Are  $I_{DS1}$  and  $I_{DS2}$  the same? Explain why.

Attach custom designer schematic, SAE settings, HPICE netlist, and simulation plots (the plots must be generated using CosmosScope).