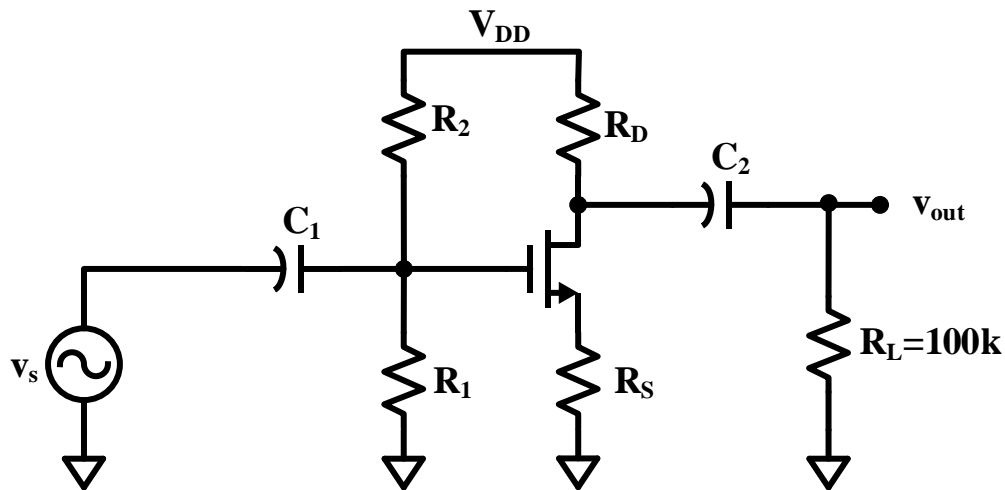


HW #7

- 1) **Textbook problems:** 17.37, 39, 43, 49, 51, 53, 55, 65, 73. You will find the values of transistor parameters in the textbook at the beginning of the problem set.
- 2) Design and simulate a common-source amplifier with Four-Resistor biasing shown below, for a **small-signal gain of 5**. Use the models provided for 180nm CMOS FETs. Illustrate your results using DC operating point, AC and transient analyses. *Note that the simulation models have different parameters than described by the V_{THN} , KP_n and λ data in the book.*



Solve on your own (Don't turn these in): 17.32, 34, 40, 42, 44, 46, 48, 50, 52, 54, 60, 68, 70, 72.