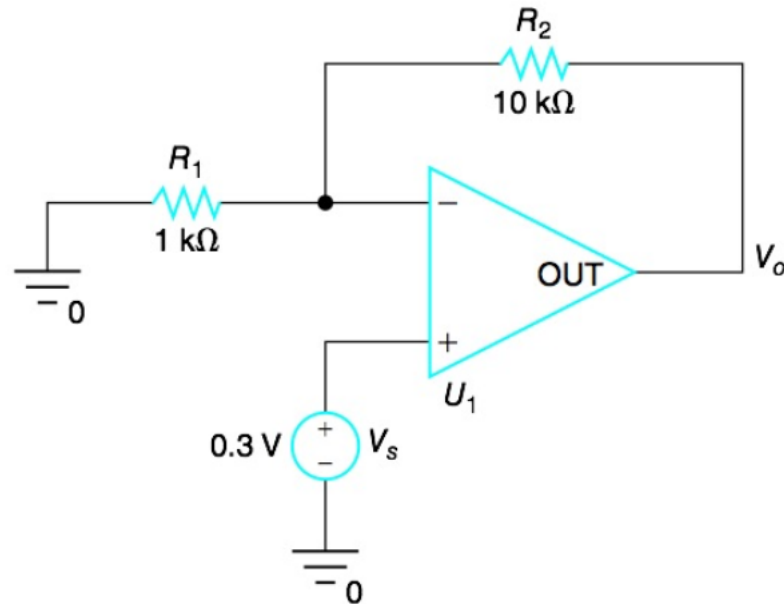# Tutorial 6 for CAD
Sample Questions and Exercises

2019 Fall
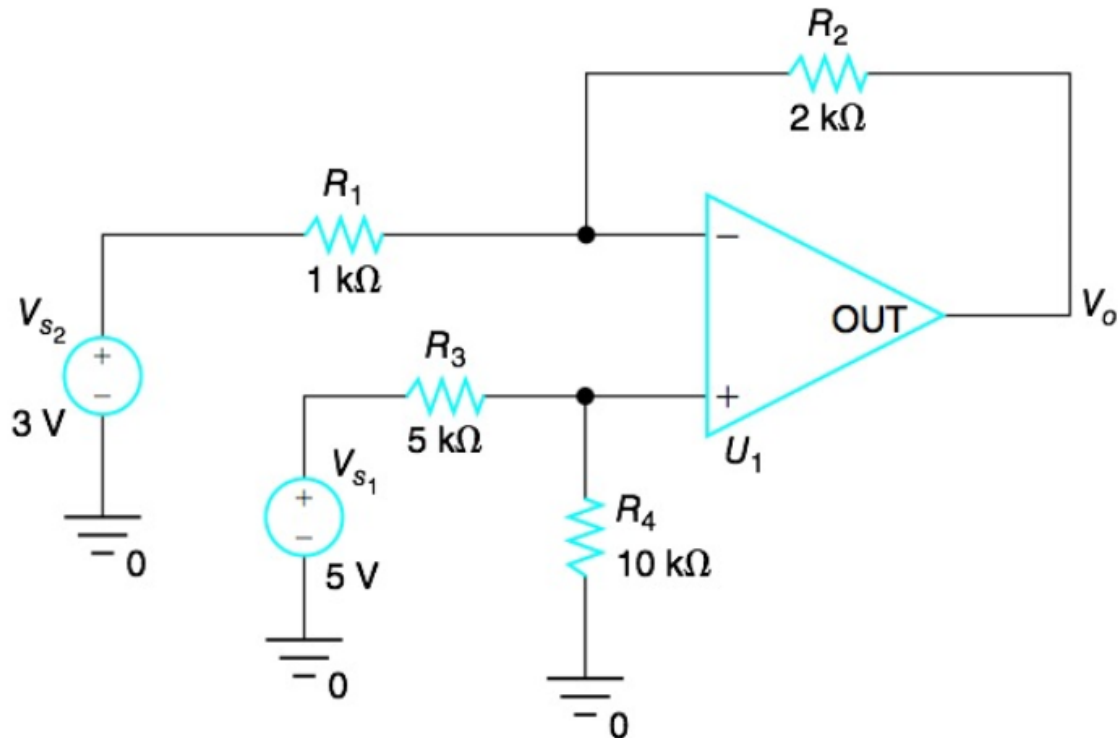
1 Ideal OP AMP

- Find V_0 in the circuit shown below
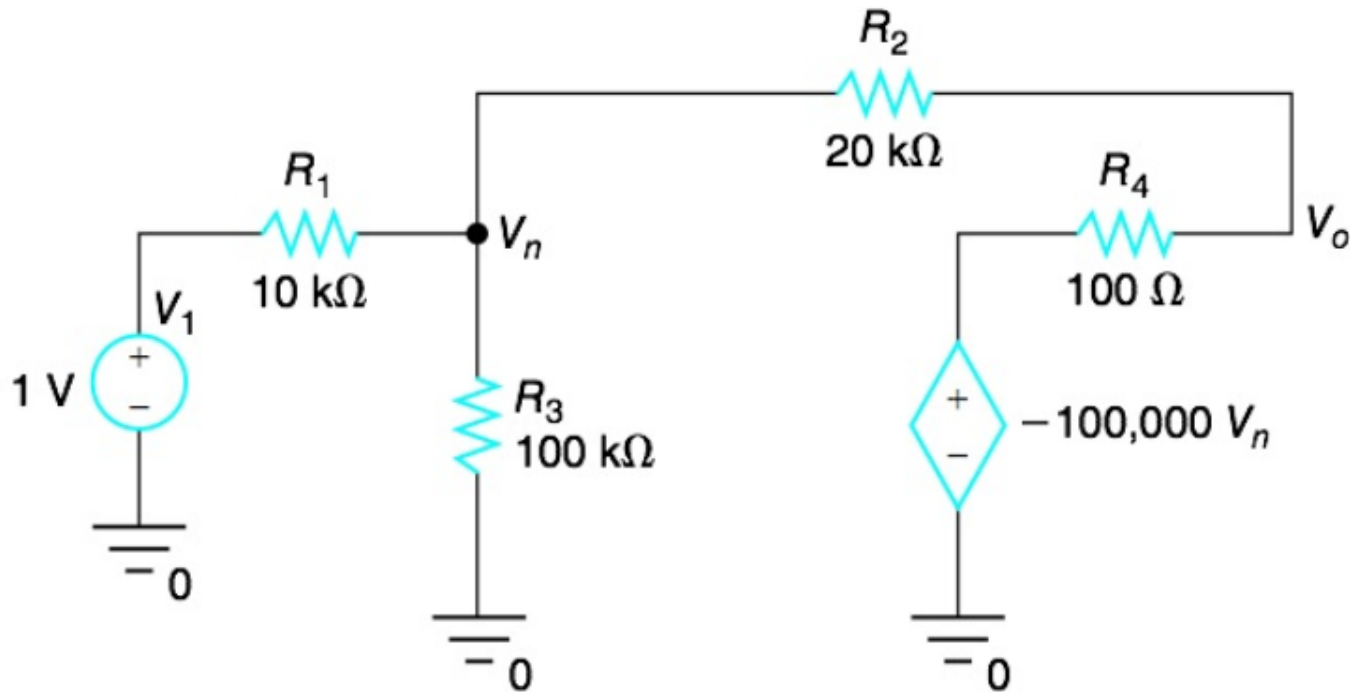
2 Sum and Difference

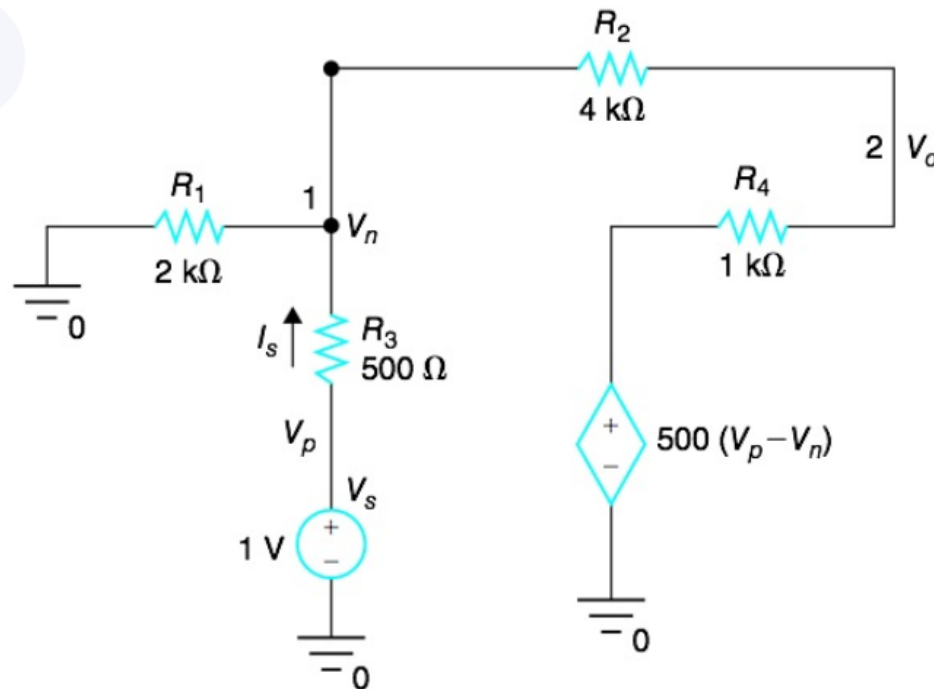- Find V_0 in the circuit shown below

3 Inverting Configuration

- Find V_0 in the circuit shown below

4 Noninverting Configuration

- In the circuit below

(Questions are in the next page)

4 Noninverting Configuration

a. write a node equation at node 1 by summing the currents away from node 1.
b. write a node equation at node 2 by summing the currents away from node 2. ($V_p = V_s = 1\,\text{V}$)
c. solve the two node equations to find numerical values of V_n and V_o.
d. find the value of I_s through R_3. Find the input resistance $R_{in} = V_s/I_s$.