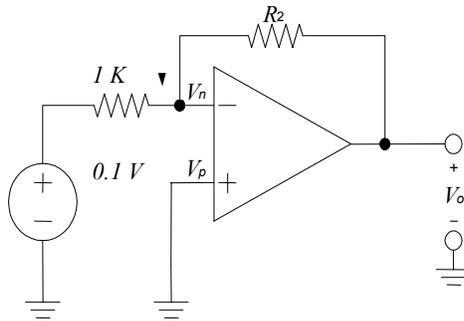
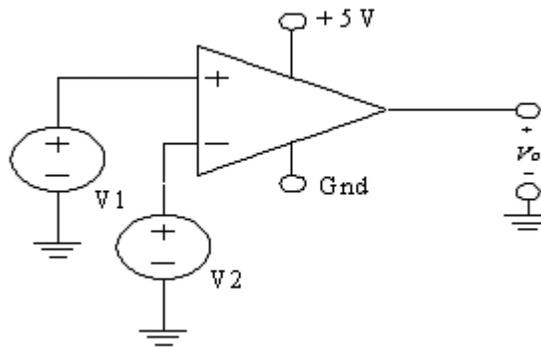




3. In order to achieve a gain of  $-50$  in the following circuit, what value of  $R_2$  should be used? What is the output voltage for this circuit? **[10+5 pts]**



4. Consider the comparator as shown below. Find out the  $V_{out}$  for the following conditions.



V1	(V2 = 1V) Vo	(V2 = 3V) Vo
-1		
0		
1		
2		
3		
4		
5		