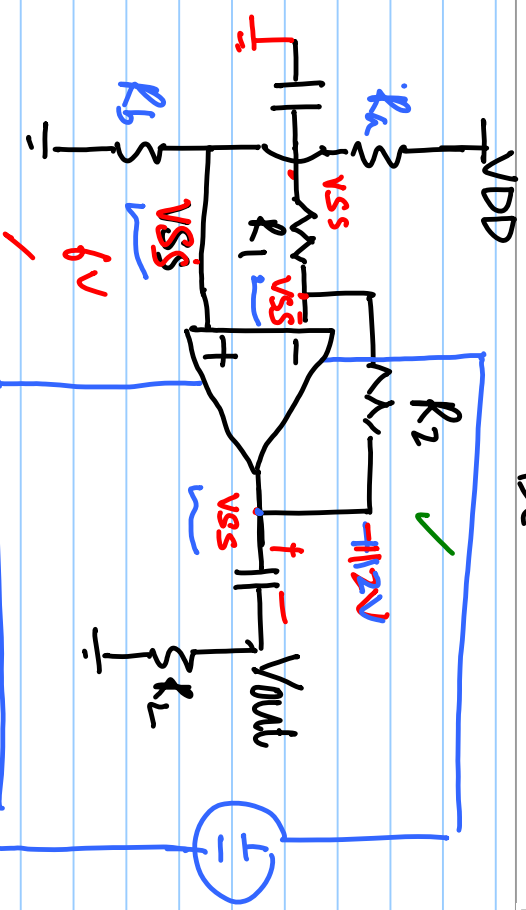
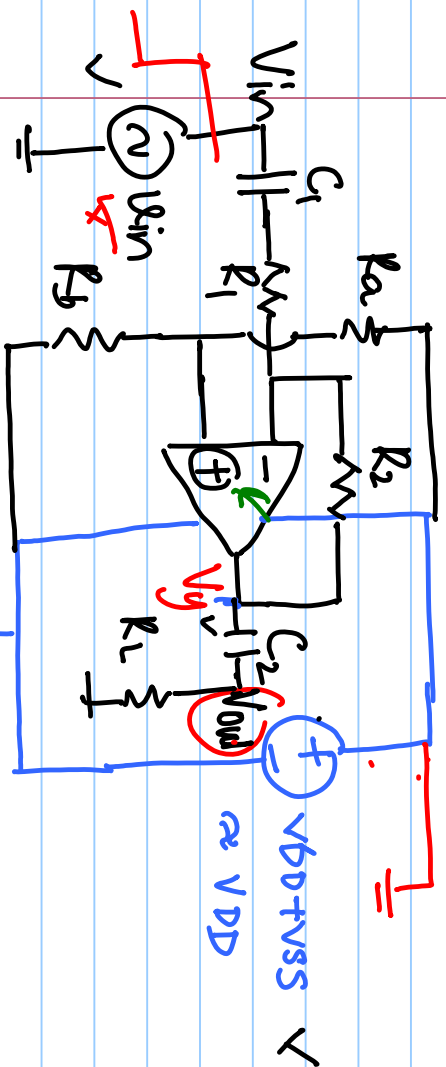
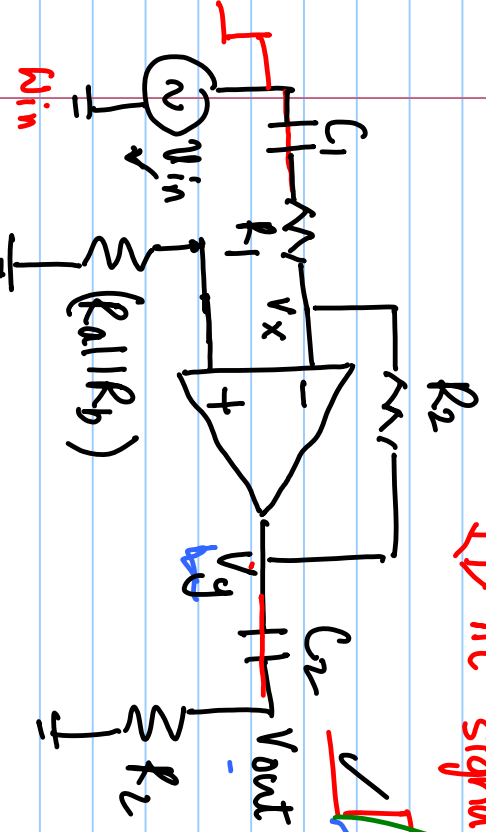


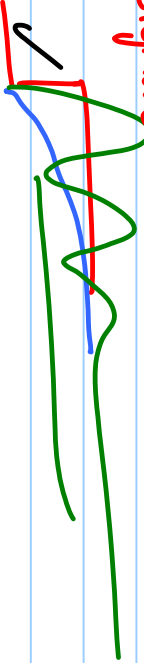
# Lecture #14



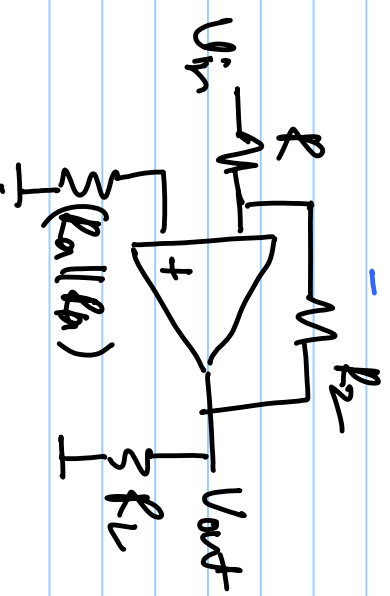
'DC'



AC signals

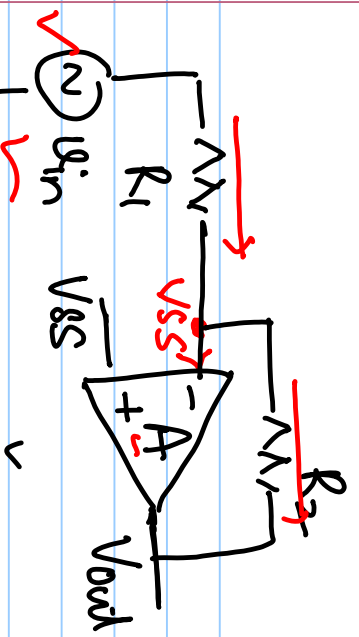


$$\frac{V_{out}(s)}{V_{in}(s)} = -\frac{R_2}{R_1}$$

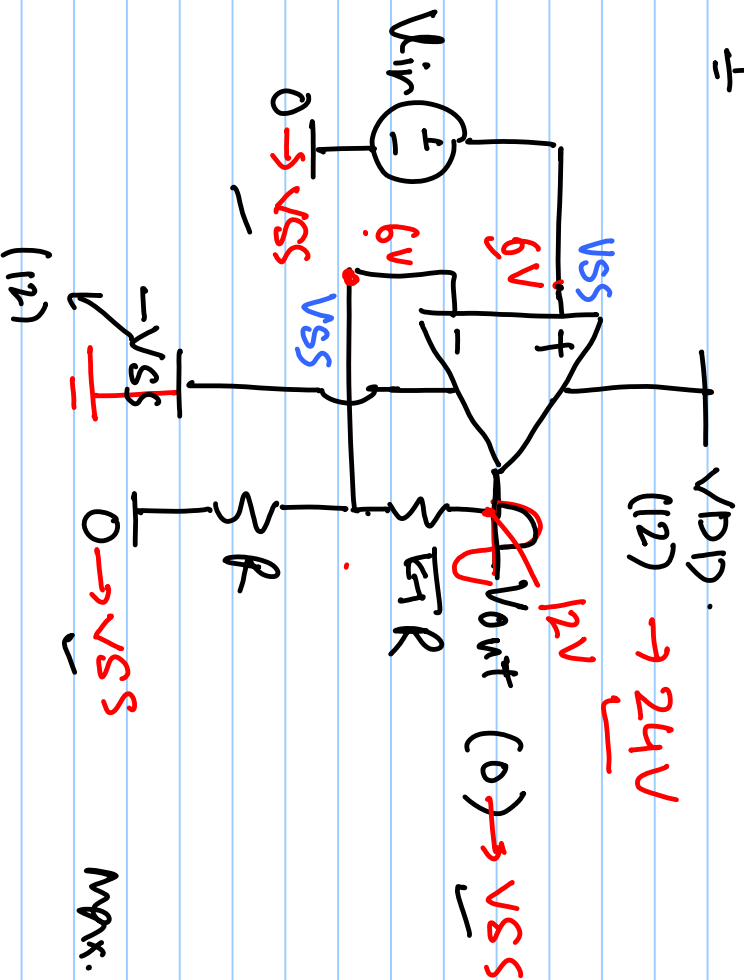
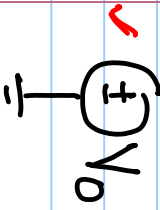


$$\frac{V_{out}}{V_{in}} =$$

$$V_y = -\frac{R_2}{R_1} V_{in} + ( )$$



$$\frac{V_0 - V_{SS}}{R_1} = - \frac{V_{SS} - V_{out}}{R_2}$$

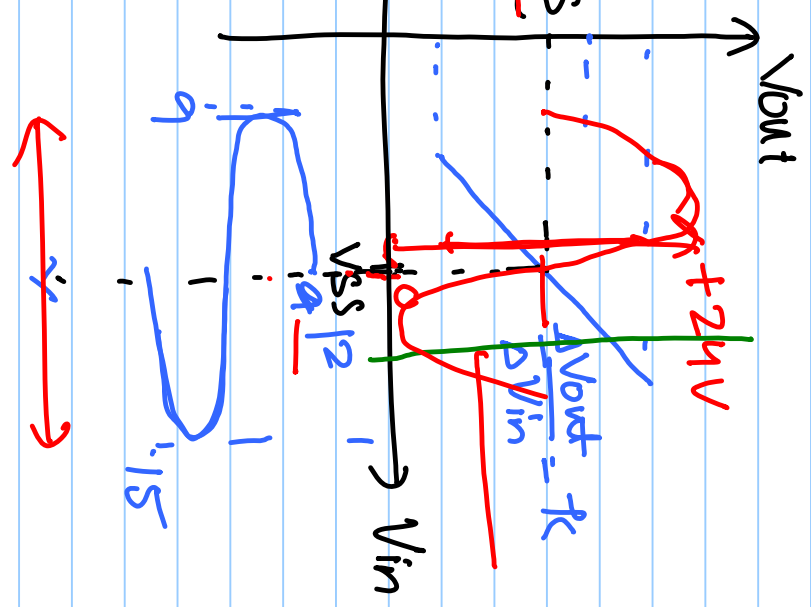


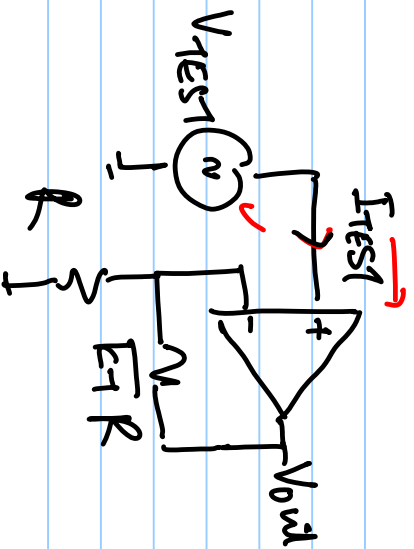
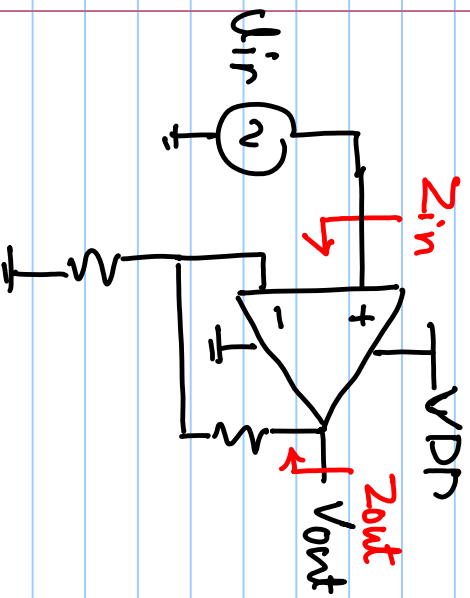
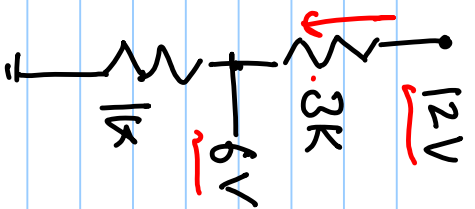
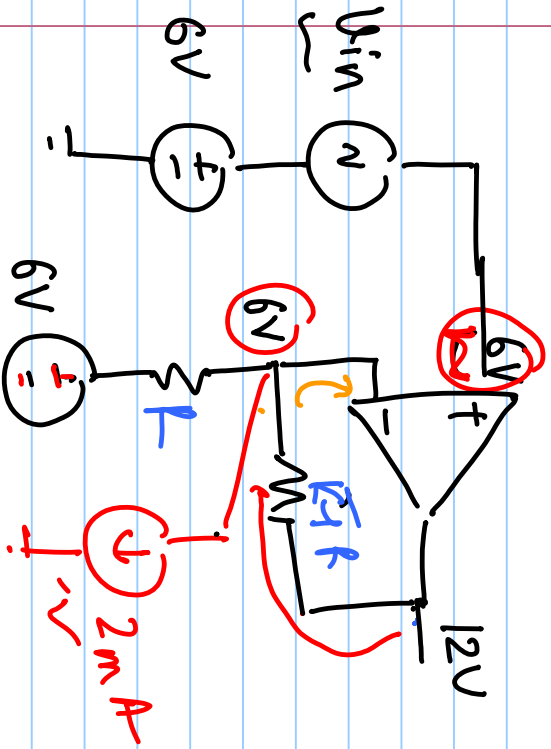
(12)  $\rightarrow 24V$

$V_{out} (0) \rightarrow V_{SS}$

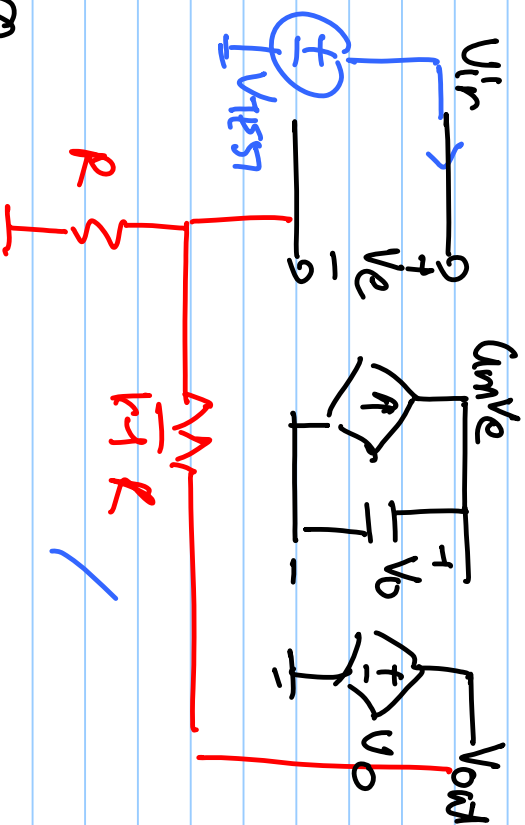
Max.  $V_{in} = 3V$

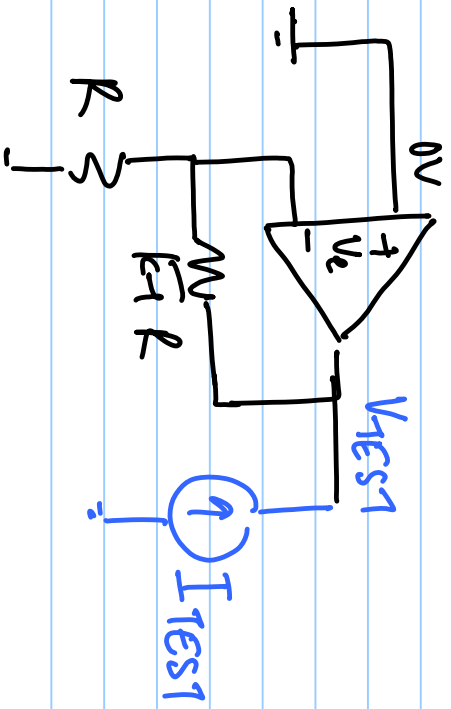
$K = 4$





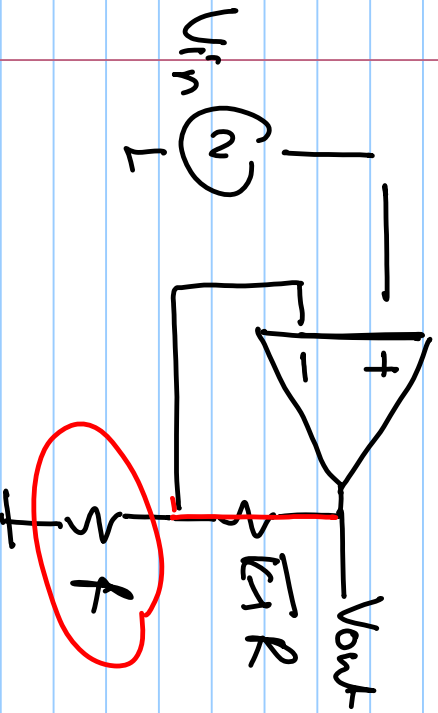
$I_{TEST} = 0 \Rightarrow Z_{in} = \infty$





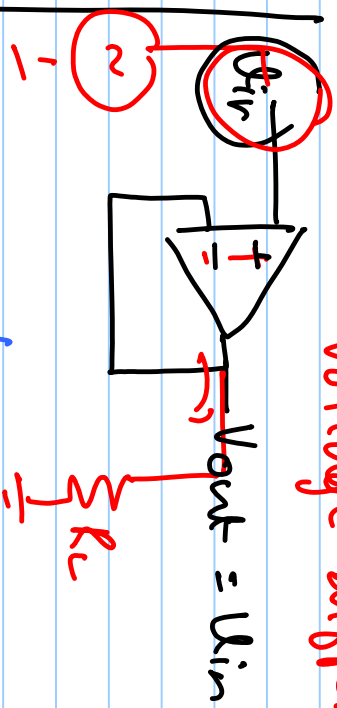
$V_{test}$

$$A(0 - \frac{V_{test}}{R}) = V_{test}$$

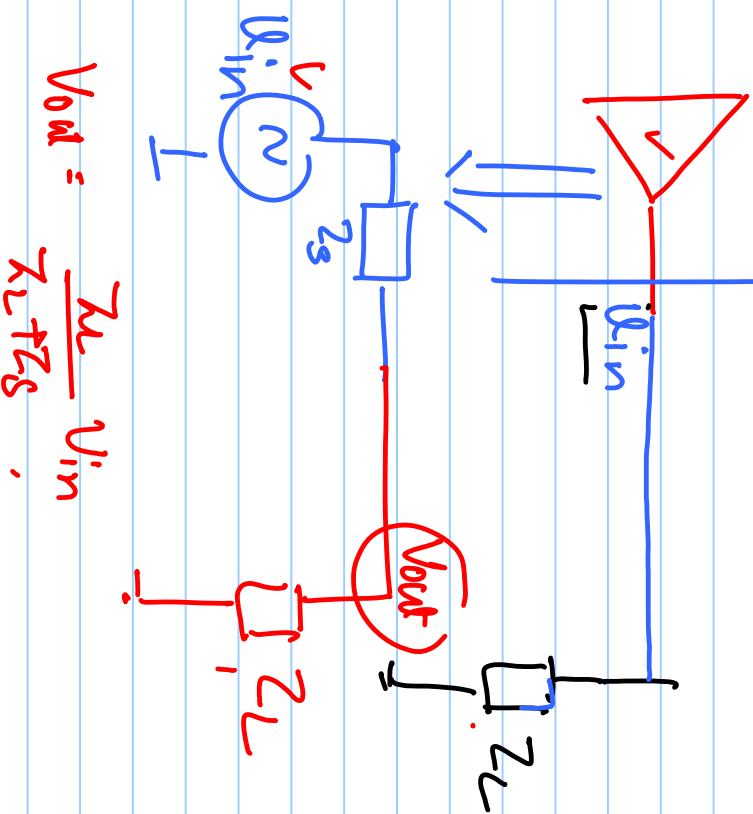


$$V_{out} = R U_{in}$$

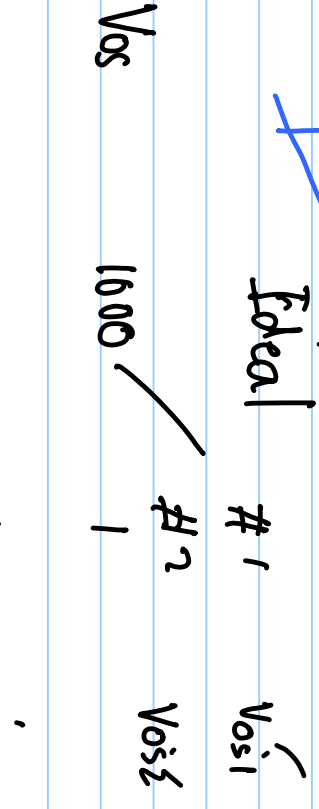
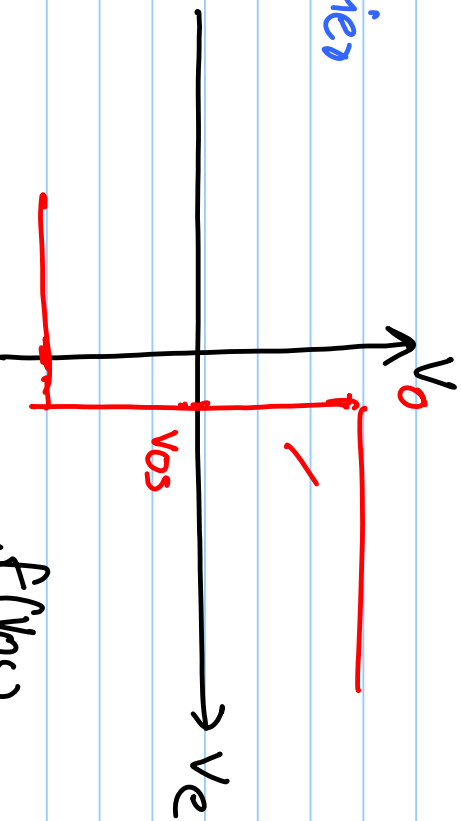
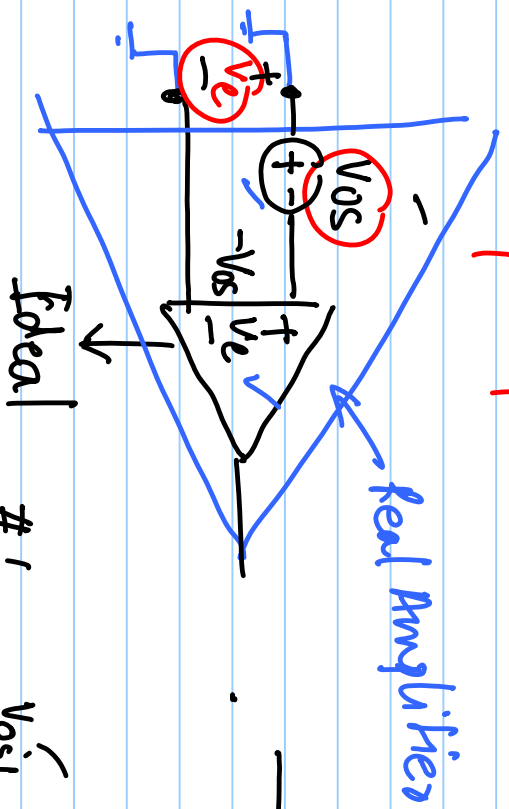
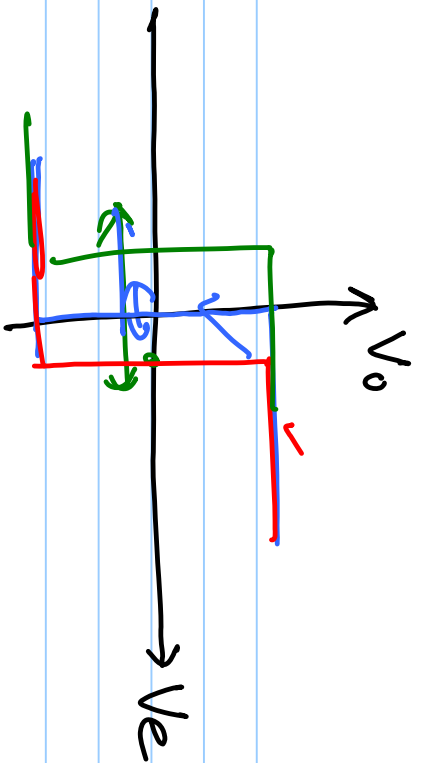
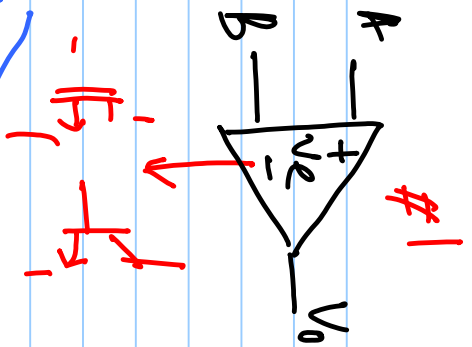
$$V_{out} = U_{in}$$



Voltage buffer.



$$V_{out} = \frac{Z_L}{Z_L + Z_s} U_{in}$$



#1 Vos1  
 #2 Vos2  
 # 1000 Vos1000

