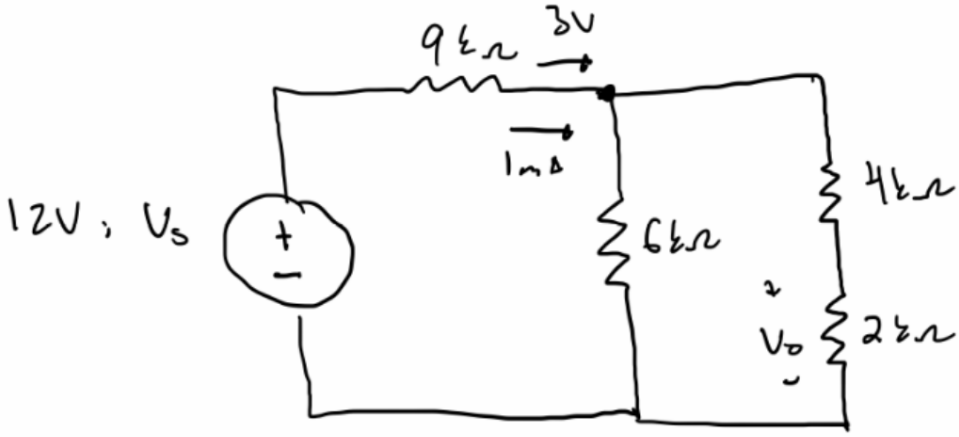
HW 3.2

Saturday, February 1, 2020 4:46 PM

#12: In the following circuit find V_o, if $V_s = 12V$:



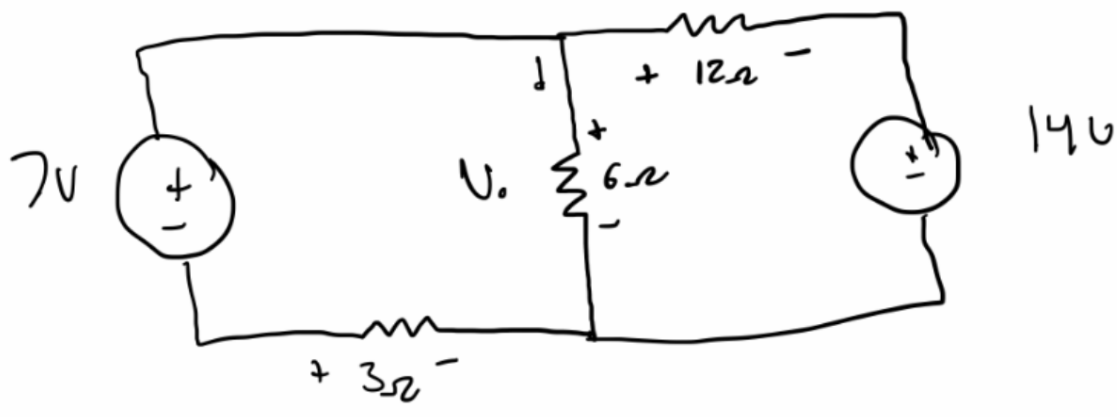
$R_{Total} = 9k\Omega + 3k\Omega = 12k\Omega$

$\frac{12V}{12k\Omega} = 1mA$ $\qquad$ $\frac{9k\Omega}{12k\Omega} \cdot 12V = 3V$

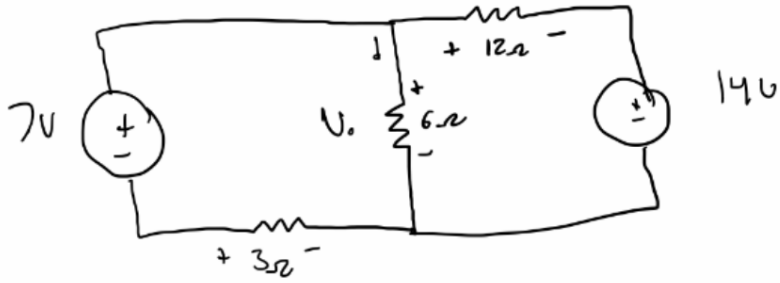
$1mA \cdot \frac{6k\Omega}{12k\Omega} = 500mA$

$2k\Omega \cdot 500mA = 1V = V_o$

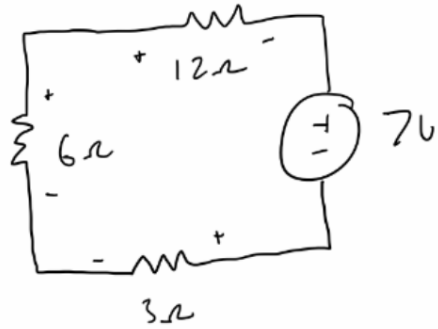
#16: In the following circuit find V_o:



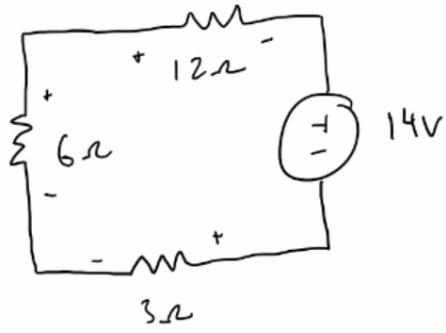
#16: In the following circuit find V_o:



$\frac{6}{9} \cdot 7$ $\quad\quad$ $\frac{6}{18} \cdot 14$



$I_{T_1} = \frac{7}{21} = 0.\overline{3}\,A$



$I_{T_2} = \frac{14}{21} = 0.\overline{6}\,A$

$I_{T_1} + I_{T_2} = I_o = 1A$

$\frac{6\Omega}{1A} = 6V = V_o$