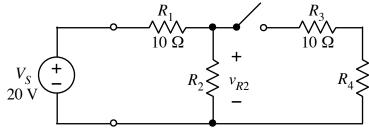
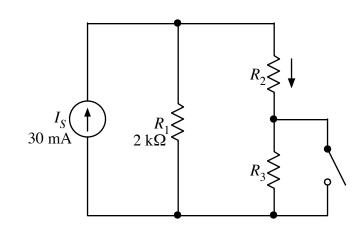
a. For the circuit shown at right, when the switch is open (R_3 and R_4 disconnected), $v_{R2} = 15$ V. When the switch is closed (R_3 and R_4 are connected), $v_{R2} = 12$ V. Determine the values for R_2 and R_4 .



Note: Using voltage divider techniques is probably an effective way to work this problem.

$$R_2 =$$
______; $R_4 =$ ______

b. For the circuit shown at right, when the switch is closed (R_3 shorted), i_{R2} = 20 mA. When the switch is open (R_3 not shorted), i_{R2} = 10 mA. Determine the values for R_2 and R_3 . Note: Using current divider techniques is probably an effective way to work this problem.



$$R_2 = \underline{\hspace{1cm}}$$

$$R_3 =$$
