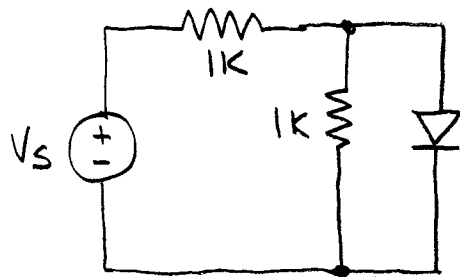
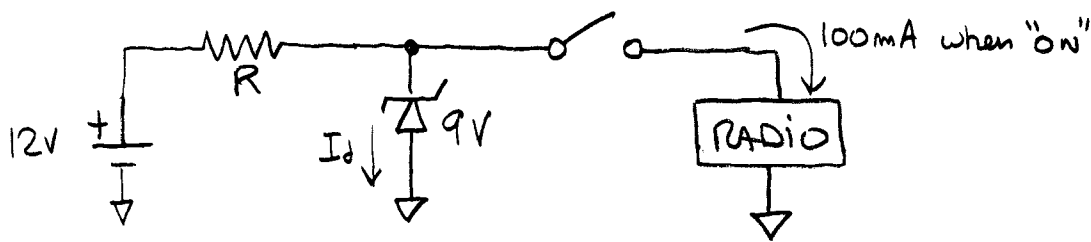


8. At what value of V_s does the diode begin to conduct?
Assume diode "on" voltage is 0.7V.



hint: (voltage divider)

9. In the circuit below, when the switch is closed, the radio draws 100mA. To regulate the voltage properly, the zener diode must draw 10mA. Determine the value of R in ohms and watts. Also determine the wattage rating of the zener diode.



I_d must be $> 10\text{mA}$ for diode to regulate.

Hint: Must check values of R + diode wattage rating when switch is open and closed.