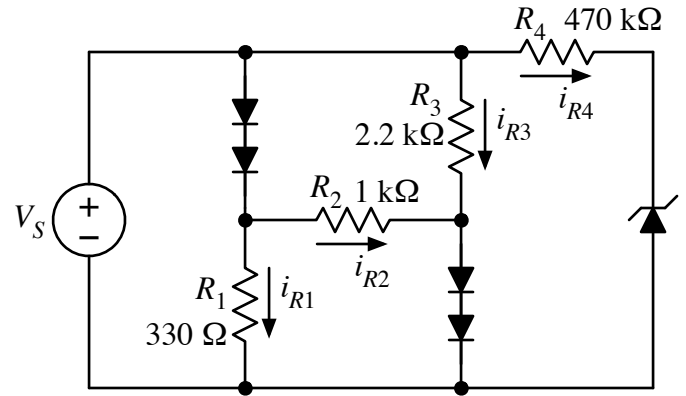**EE 230 — HW 4.15**   Name_____

For the circuit at right use the on/off model for the
regular diodes and the "break-down" model for the
Zener to find the four resistor currents. The Zener
voltage is 5 V. Do the calculation first for $V_S = 7.5$ V
and then repeat for $V_S = 2.5$ V.

R_4 470 kΩ

R_3
2.2 kΩ i_{R3}

i_{R4}

R_2 1 kΩ

i_{R2}

R_1 i_{R1}

330 Ω

V_S

$V_S = 7.5$ V:

$i_{R1} =$ _____ $i_{R2} =$ _____

$i_{R3} =$ _____ $i_{R4} =$ _____

$V_S = 2.5$ V (Check assumptions carefully!)

$i_{R1} =$ _____ $i_{R2} =$ _____

$i_{R3} =$ _____ $i_{R4} =$ _____

Put your answers — and whatever work will fit — on this sheet. Staple sheets with additional work behind.