Special Problem 3.3-3

The voltage source for this circuit has a DC value of $V_s = 3.4$ V, and a small-signal component of $v_s(t)$. The resulting current from the source has a DC component I, and a small-signal component $i_s(t)$.

The diodes are junction diodes, with ideality factors shown in the circuit. **Both diodes are forward biased in this circuit.**

Find the ratio $v_s(t)/i_s(t)$.

Hint: Note that the ratio $v_s(t)/i_s(t)$ is in units of resistance .