Problem HH 1.9

For the circuit shown in the Figure below, with $V_{in} = 30V$ and $R_1 = R_2 = 10k\Omega$, find:

1. The output voltage with no load attached (this is the open-circuit voltage).

2. The output voltage with a $10k\Omega$ load (treat as voltage divider, with $R_2$ and $R_{load}$ combined into a single resistor)

3. The Thevenin equivalent circuit.
4. The same as in part (2), but using the Thevenin equivalent circuit (again you wind up with a voltage divider; the answer should agree with the result in part (2)).

5. The power dissipated in each of the resistors.