Small Signal Practice Problems

These are optional extra problems to help you with the Small Signal Model, if you are still confused. If you are not confused, just relax until the final.

Also, in calculating analytical expressions for $r_{in}$ and $r_{out}$, it will be assumed that the input source has a source resistance of $R_s$ and a load resistance $R_L$ has been applied.

For each of the circuits below,
1. Determine analytical expressions for $r_{in}$ and $r_{out}$
2. Based upon the results found in (1), determine whether the circuit is best characterized as a voltage, current, transconductance, or transresistance amplifier