

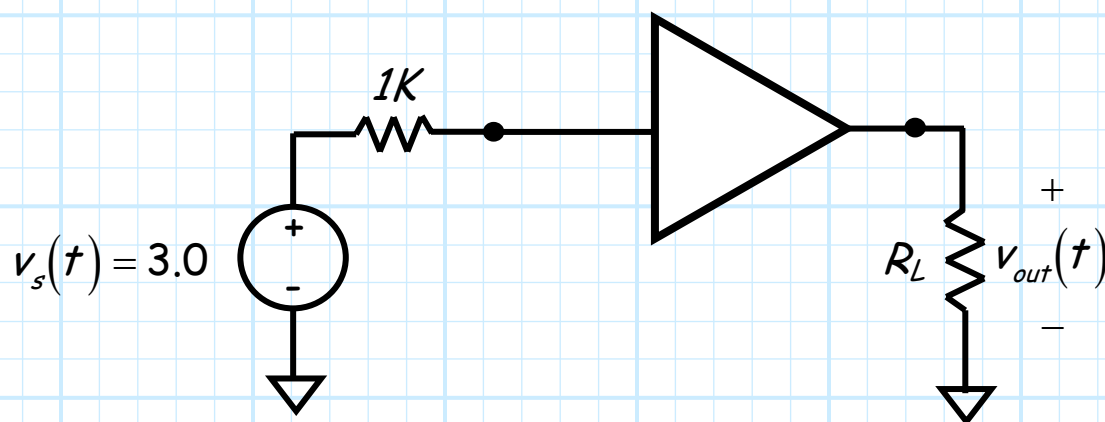
Special Problem 1.5-1

The amplifier in the circuit below has an **input resistance** of $2\text{K}\Omega$.

The **source voltage** is 3.0 V

When $R_L = 1\text{K}\Omega$, the output voltage is 5 V .

When $R_L = \text{infinity}$, the output voltage is 10 V .



Find the **output resistance** and **open-circuit voltage gain** of this amplifier.