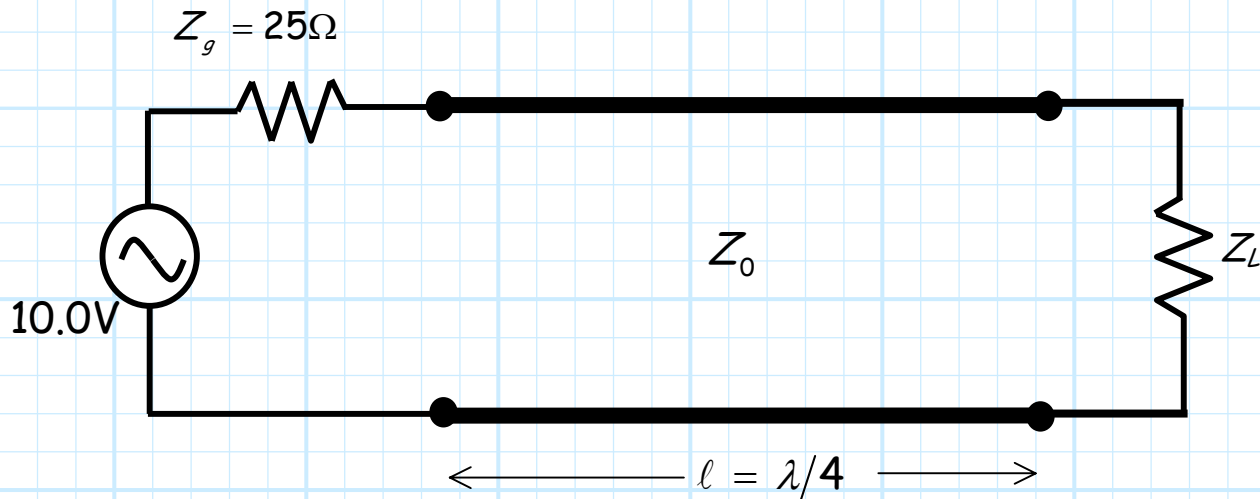


Special Problem 2.6-3

Consider this circuit, where the transmission line is **lossless**:



1) If $Z_L = 49\Omega$, **determine** the value of the **characteristic impedance** Z_0 that will **maximize** the power absorbed by load Z_L .

Determine also the value of this **absorbed** power.

2) If $Z_0 = 50\Omega$, **determine** the value of **load impedance** Z_L that will **maximize** the power absorbed by load Z_L .

Determine also the value of the power **incident** on this load.

Hint: This is **not** a boundary value problem. You do **not** need to determine constants V_0^+ or V_0^- !