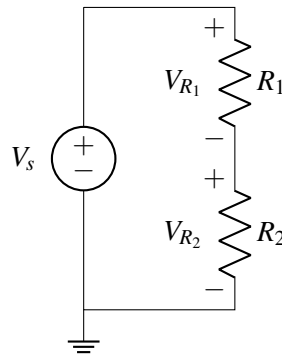

EECS 16A Designing Information Devices and Systems I

Summer 2023 Discussion 4D

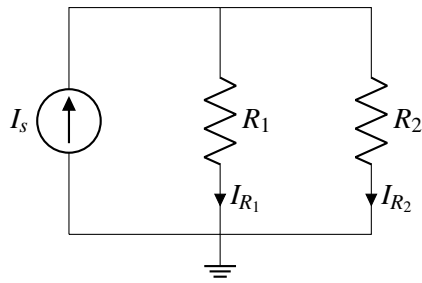
1. Volt and Ammeter

- (a) For the voltage divider below, how would we connect a voltmeter to the circuit to measure the voltage V_{R_2} ?



- (b) What would happen if we accidentally connected an ammeter in the same configuration instead? Assume our ammeter is ideal.

- (c) For the current divider below, how would we connect an ammeter to the circuit to measure the current I_{R_2} ?



- (d) What would happen if we accidentally connected a voltmeter in that configuration instead? Assume the voltmeter is ideal.

2. Solving For Power

Suppose we have the following circuit and label the currents as shown below. Calculate the power dissipated or supplied by every element in the circuit. Let $V_s = 5\text{ V}$, $I_s = 0.5\text{ A}$ and $R_1 = 5\ \Omega$.

