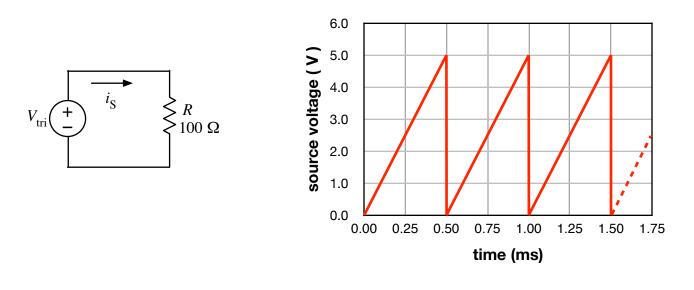
EE 201 – HW 1-11

A "ramp" voltage source is applied to a resistor, as show in the circuit. The voltage source is periodic, with a functional form shown in the graph.



a) Calculate the RMS voltage of the time-varying source. $v_{rms} =$

- b) Calculate the average power being dissipated by the resistor. $P_{avg} =$
- c) What is the average power if the source voltage ramps down from 0 to -5 V during each period?

P_{avg}=_____

- d) How does the average power change if the period is increased from 0.5 ms to 2 ms?
 - *P*_{avg} = _____