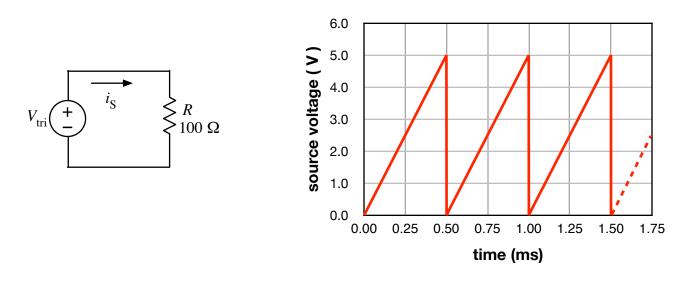
## EE 201 – HW 1-11

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<sub>avg</sub>=\_\_\_\_\_

- d) How does the average power change if the period is increased from 0.5 ms to 2 ms?
  - *P*<sub>avg</sub> = \_\_\_\_\_