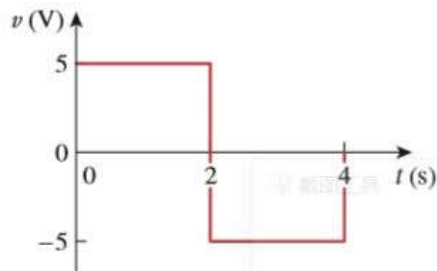
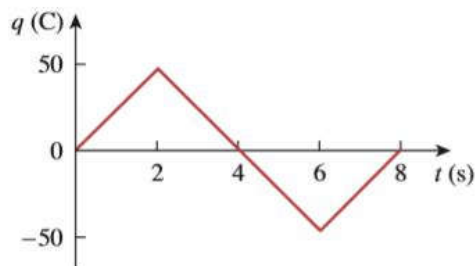


VE215 Quiz #1

Chapters 1-3 are covered in this quiz.

Problem #1

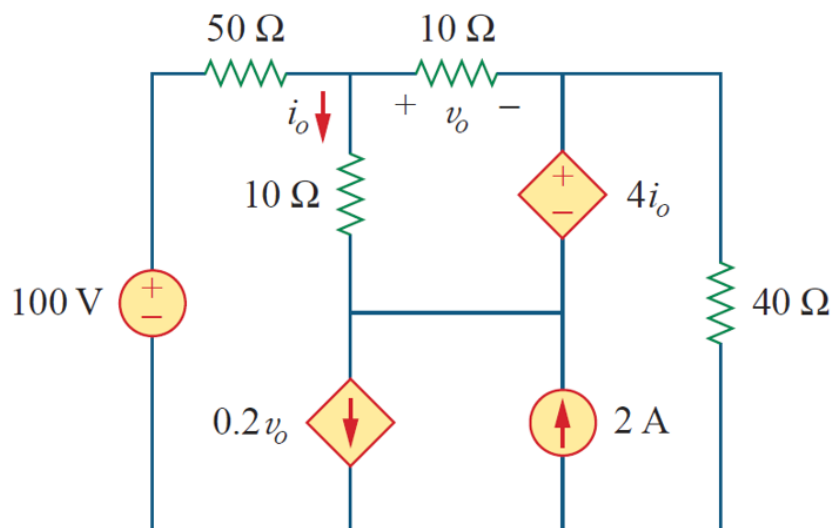


The function diagrams above shows the charge q pass through and the voltage V across an ideal active circuit element.

(1) Please sketch the curve represent the current through the element from 0s~4s.

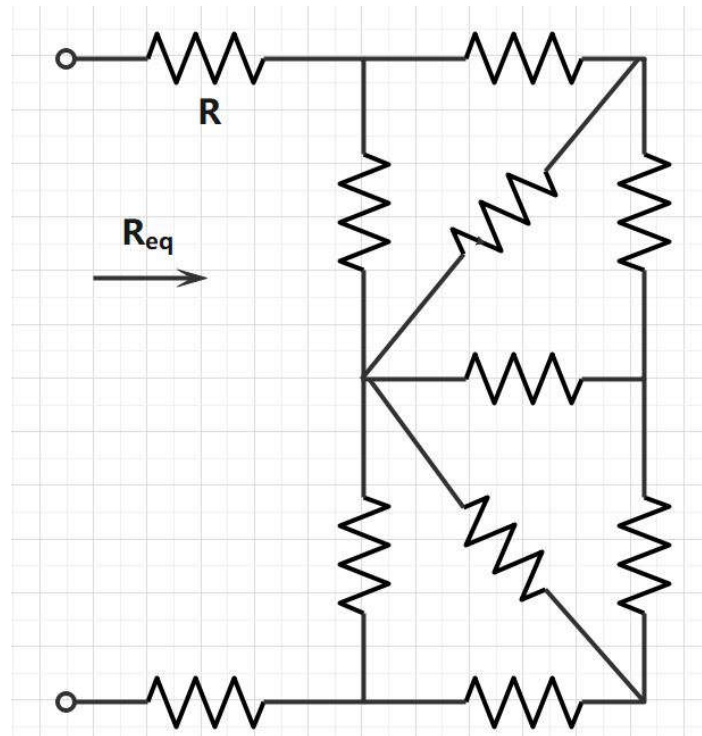
(2) Please calculate the energy absorbed by the element from 0s~4s.

Problem #2



Find v_o and i_o in the circuit above using mesh analysis..

Problem #3



Please derive the equivalent resistance of the circuit above. Each resistor has a resistance of R .