

MEMS 0031 - Electrical Circuits
Quiz #1

Name: _____

Problem #1

Given $i(t) = 5 \cdot \sin(3t)$ [A], determine the charge $q(t)$ for $t \geq 0$:

Problem #2

Given $q(t) = e^{-10t}$, determine the current $i(t)$ for $t \geq 0$:

Problem #3

Given $i(t) = 3t^3$ and $V(t) = 3t^{-2}$, determine $P(t)$ for $t \geq 0$:

Problem #4

Given the schematic below, determine the power **supplied**:

