

ECE 343 - Homework #3

Superposition - Summer 2018

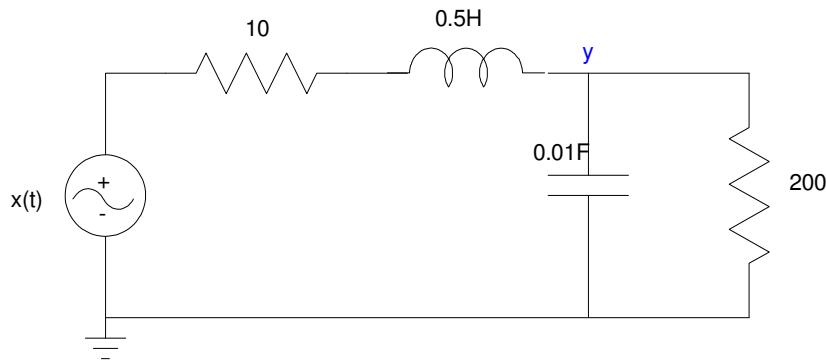
- 1) Use phasor analysis to solve the following differential equation

$$\frac{d^2y}{dt^2} + 2\frac{dy}{dt} + 10y = 20x$$

$$x(t) = 4 \cos(3t) + 5 \sin(6t)$$

- 2) Use phasor analysis to determine $y(t)$ for the following circuit. Assume

$$x(t) = 4 \cos(3t) + 5 \sin(6t)$$



- 3) Use phasor analysis to find $y(t)$. Assume

$$x(t) = 3 + 4 \sin(6t)$$

