ECE 320 - Homework #2
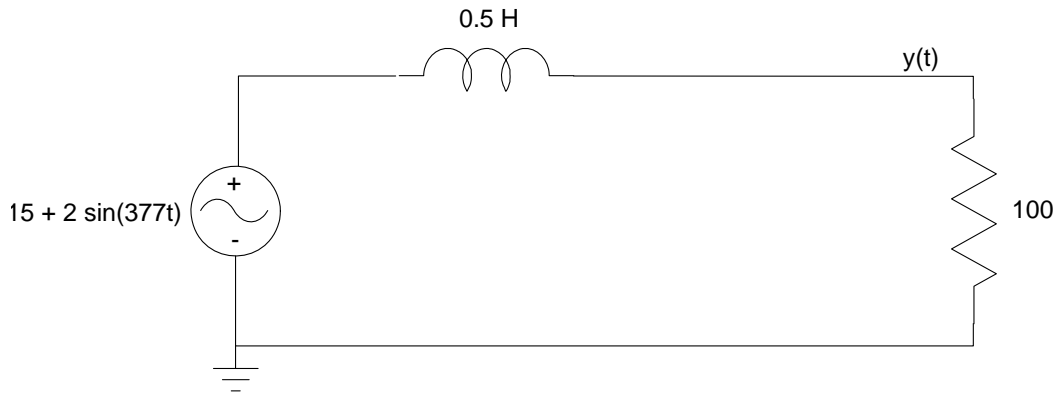
Phasors Review. Due Monday January 23rd, 2017

1a) Convert the following circuit to phasor notation
- At DC (Vin = 15V)
- At 60Hz (Vin = 2 sin(377t)

1b) Solve for y(t) using phasors.
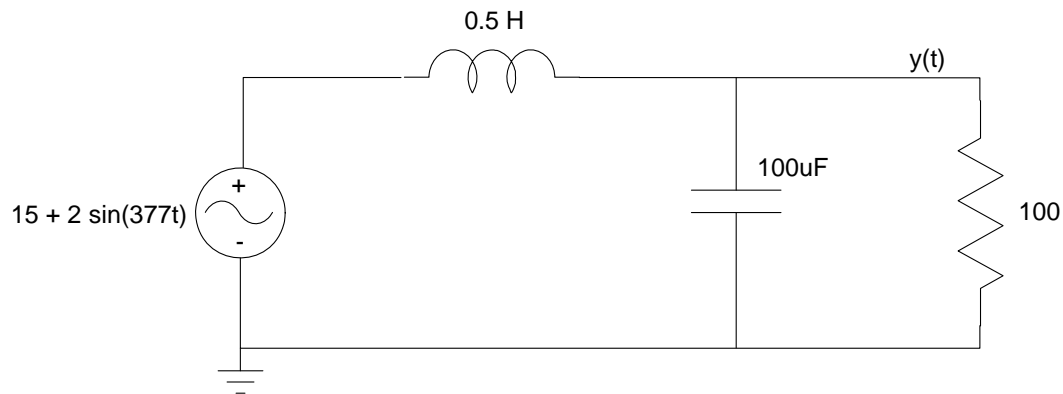
2) Check your answer in PartSim.

problem 1 & 2

3a) Convert the following circuit to phasor notation

3b) Solve for y(t) using phasors.

4) Check your answer in PartSim.

Problem 3 & 4

5) Determine the differential equation which satisfies the following transfer function

$$Y = \left(\frac{100}{(s+3)(s+10)} \right) X$$

6) Determine y(t) assuming x(t) is

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