For the circuit shown in Figure 1 the resulting phasor equations for the current, the voltage across the resistor and the voltage across the inductor are presented in equations 1 – 3. The details of these equations are being covered in class and the class slides.

(1)

**Figure 1**: RL circuit from Class.

(2)

(3)

*where: I* = current in the loop (Amp.)

*VR* = voltage drop across the resistor (Volts)

*VL* = voltage drop across the inductor (Volts)

1. Use MATLAB expressions to calculate the phasors in Cartesian form (i.e., enter the above equations in the command window) for:
   1. the current, *I*
   2. the resistor voltage, *𝑉𝑅* and
   3. the inductor voltage, *𝑉𝐿*
2. MATLAB expressions to determine the polar phasors for each of the above (you may use the script created in the script problem )

These steps may be done in the command window or with script