1. Measured peak voltage 25.626153mA

2. XL = 2(pi)(f)(L) = 2(pi)(60Hz)(1H) = 376.99 ohm

3. Z = (XL^2 + R^2)^0.5 = (376.99ohm^2 + 100ohm^2)^0.5 = 390.03 ohm

4. I = V/Z = 10v/390.03ohm = 25.64mA