**Chapter 1, Solution 13**

(a) *i* = [d*q*/dt] = 20πcos(4πt) mA

*p* = *vi* = 60πcos2(4πt) mW

At t=0.3s,

*p* = *vi* = 60πcos2(4π0.3) mW = **123.37 mW**

(b) *W* =

*W* = 30π[0.6+(1/(8π))[sin(8π0.6)–sin(0)]] = **58.76 mJ**