

ECE 202 (Fall 2007)
Homework No. 5
Due: Friday, 10/5/2007

(P.1) [50 pts] Re-work the problems on Exam I that you did not receive full credit. Please attach your exam (original or a photo-copy) to the end of your assignment.

(P.2) [15 pts] Solve Problem 8-59 in text.

(P.3) [15 pts] Solve Problem 8-60 in text.

(P.4) [20 pts]

(a) [10 pts] Determine the rms value of the current waveform in Figure 1.

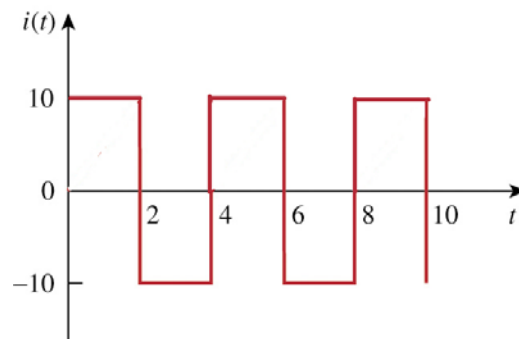


Figure 1 Waveform for Problem P.4

(b) [5 pts] If the current is passed through a $2\text{-}\Omega$ resistor, what is the average power dissipated by the resistor?

(c) [5 pts] If a sinusoidal signal with the same frequency and amplitude as $i(t)$ is passed through the $2\text{-}\Omega$ resistor, what is the average power dissipated by the resistor?