

ECE 3041

Homework Assignment No. 1

Spring 2012 Homework for Experiment No 2

Due Week of January 23

1. Determine the average value and rms value of the following periodic signal $x(t)$. Determine by both classical integration and Mathcad. Determine the crest factor.

For the Mathcad use $A = 100$ V and $T = 1$ ms.

$$x(t) = \begin{cases} \frac{-4At}{T} + A & 0 < t < \frac{T}{4} \\ \frac{4At}{3T} - \frac{A}{3} & \frac{T}{4} \leq t \leq T \\ x(t \pm nT) & n \text{ is any integer} \end{cases}$$

