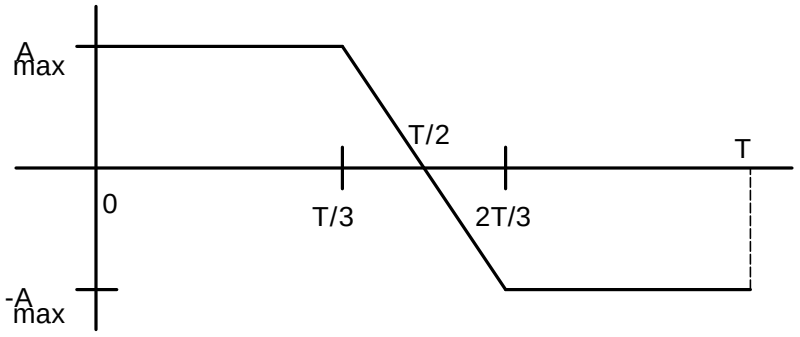
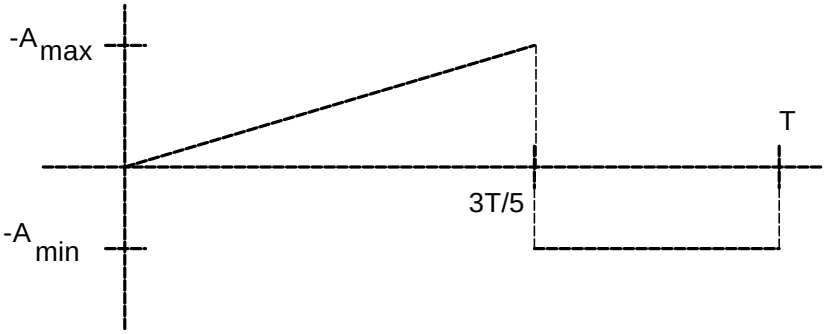
Due: Wednesday, 10/24/01

1. Find the velocity and displacement profiles for the given acceleration profile.
   - Identify the order of all parts of the velocity and displacement profiles and values for all transition points
   - Leave your answer in terms of A_{max} and T.



2. Use Excel to solve problem #1 numerically for $A_{max} = 20$ rad/sec^2 and T=0.6 seconds.

3. Find the velocity and displacement profiles for the given acceleration profile below.
   - Note that $A_{min} \neq A_{max}$, but that the final velocity must be zero.
   - Identify the order of all parts of the velocity and displacement profiles and values for all transition points
   - Leave your answer in terms of A_{max} and T.



4. Determine the coefficients for all three polynomials of the "4-3-4" profile for the problem below.
   - Use Excel or Matlab to plot the displacement, velocity, and acceleration profiles
   - Clearly identify the maximum and minimum velocity and acceleration on the plots