1. Complex Exponentials: Simply the following expression and give your answer both in polar and rectangular form.
   * c=3ejπ/4+4e−jπ/2
2. Difference Equations: Solve the following difference equation using recursion by hand (for n=0 to n=4)
   * y[n] + 0.5y[n-1] = 2x[n-1]; x[n] = δ[n], y[-1] = 0
3. Differential Equations: Solve the following problem for y(t).
   * dy/dt + 2y(t) = 2x(t); x(t) = u(t), y(0) = −1