

1. Sketch the following discrete-time signals by hand for  $k = -1, 0, \dots, 2$ .
  - a.  $x[k] = \delta[k]$
  - b.  $x[k] = u[k]$
  - c.  $x[k] = \delta[k] + u[k]$
  - d.  $x[k] = (-0.5)^k$
  - e.  $x[k] = (-0.5)^k u[k]$
  - f.  $x[k] = 0.5^k$
  - g.  $x[k] = 1.1^k$
  - h.  $x[k] = e^{jk/4}$ , note  $x[k]$  is complex, so plot in complex plane
  - i.  $x[k] = e^{-jk/4}$ , note  $x[k]$  is complex, so plot in complex plane
2. Use matlab to plot discrete-time signals given in parts a-g of problem 1 for  $k = -1, 0, \dots, 5$ . Use subplot to minimize paper use.
3. P8.2-3. Plot signals with matlab and label period to verify results. Use subplot to minimize paper use.
4. P8.2-4. Plot signals with matlab and label period to verify results. Use subplot to minimize paper use.