1. Draw the (exponential) spectrum for the following signal:
   a) \( x(t) = 2 + 4 \cos(50t + \pi/2) + 12 \cos(100t - \pi/3) \)
   b) \( x(t) = 4 \cos(2\pi(1000)t) \cos(2\pi750000t) \)

2. Compute the Fourier series for the following signals:
   a) \( x(t) = 2 + 4 \cos(50t + \pi/2) + 12 \cos(100t - \pi/3) \)
   b) \( x(t) = 4 \cos(2\pi(1000)t) \cos(2\pi750000t) \)
   c) 
      ![Diagram of signal c)
   
   d) 
      ![Diagram of signal d)

3. For the signals given in Problem 2 c) and 2 d), use Matlab to plot the truncated Fourier series for \( N = 3, N = 10 \) and \( N = 40 \). (Use subplot to save paper).