Q1:

$$f_s = 1000$$

$$t = 0 : \frac{1}{f_s} : 1 - \frac{1}{f_s}$$

$$x = \cos(10 * pi * t)$$

① plot fft of x

② xm = modulate (x, t, 100)   ← Carrier freq

    plot fft of xm

③ play xm