Problem 3.8

(a) $f_0 = gcd(100, 250) = 50$ Hz N = 5, Complex amplitudes: $a_{-5} = a_5 = 5$, $a_2 = 10e^{j(\frac{\pi}{4})}$ and $a_{-2} = 10e^{-j(\frac{\pi}{4})}$, $a_0 = 10$

(b) The signal is periodic as the frequencies are harmonic. Fundamental Period $T_0 = 1/f_0 = 0.02$ s

(c) Plot of spectrum of signal versus f in Hz:

