Problem 3.20

(a) The Fundamental Frequency, $\omega_0 = gcd(40, 90) = 10$ rad/s

(b) The fundamental period $T_0 = 1/f_0 = \frac{2\pi}{10}$ s

(c) DC value of this signal = 0.5

(d) Fourier coefficients and their values :

$\mathbf{k}$	$\mathbf{a_k}$
-9	$0.4e^{-j2}$
-4	$0.6e^{j1.4}$
0	0.5
4	$0.6e^{-j1.4}$
9	$0.4e^{j2}$