Q1.1.1

$\rho = x \cos\theta + y \sin\theta$; $x = r \cos\theta, y = r \sin\theta$

$\rho = (r \cos\theta) * \cos\theta + (r \sin\theta) * \sin\theta$

$\rho = r [(\cos\theta)^2 + (\sin\theta)^2] = r$ = Amplitude

θ = phase = arctan (y/x)

Q1.1.2

$y = mx + c$

$\rho \sin\theta = m * (\rho * \cos\theta) + c$

$c = \rho * [(m * \cos\theta) - \sin\theta]$

$m = \tan\theta - (c * \sec\theta)$

Q1.1.3

$\rho = ([(W ^ 2 + H ^ 2)] ^0.5) / 2$

$\theta = 0$ to pi

Q1.1.4

File in matlab directory