Q1. (20, 0.3, 0.4, 0.1)

$P_1 = 0.3 \quad P_2 = 0.4 \quad P_3 = 0.1$

$P_4 = 1 - 0.3 - 0.4 - 0.1 = 0.2$

4 components

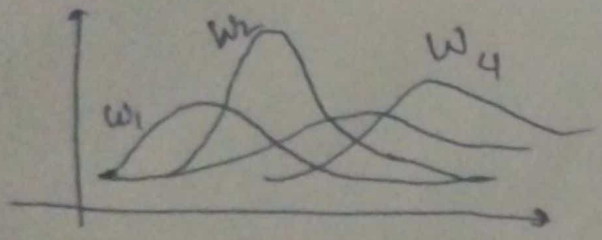
Q2. 4 Components

~~$N(\mu_1, \Sigma_1), N(\mu_2, \Sigma_2), N(\mu_3,$~~

$N(\mu_1, \Sigma_1)$, $N(\mu_2, \Sigma_2)$, $N(\mu_3, \Sigma_3)$

$N(\mu_4, \Sigma_4)$ Four weights W_1, W_2, W_3, W_4

with $\Sigma \omega_i = 1$



$P(x | [\omega_i], [\mu_i], [\Sigma_i])$