07 (7) if $\sum_{i=1}^{p2} w_i x_i + w_0 \leq 0$

08

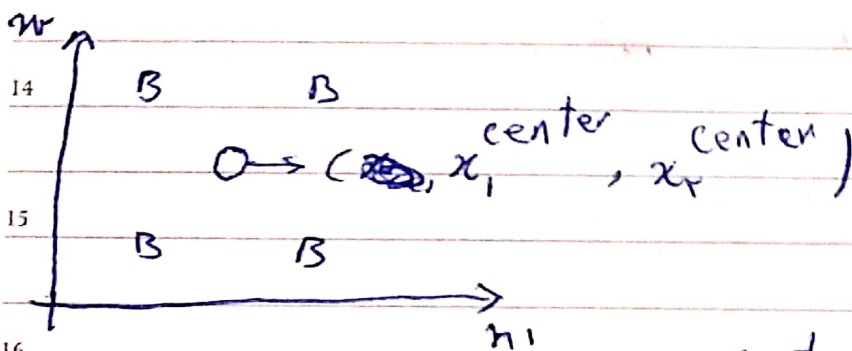Then class is $+$; Else class is $-$

09

10 $w_i = \dfrac{\mu_{i0} - \mu_{i1}}{6_i^{R2}}$, $w_0 = \ln \dfrac{1 - P(y=1)}{P(y=1)} + \sum_{i=1}^{2} \dfrac{\mu_{i1}^2 - \mu_{i0}^2}{2 6_i^2}$
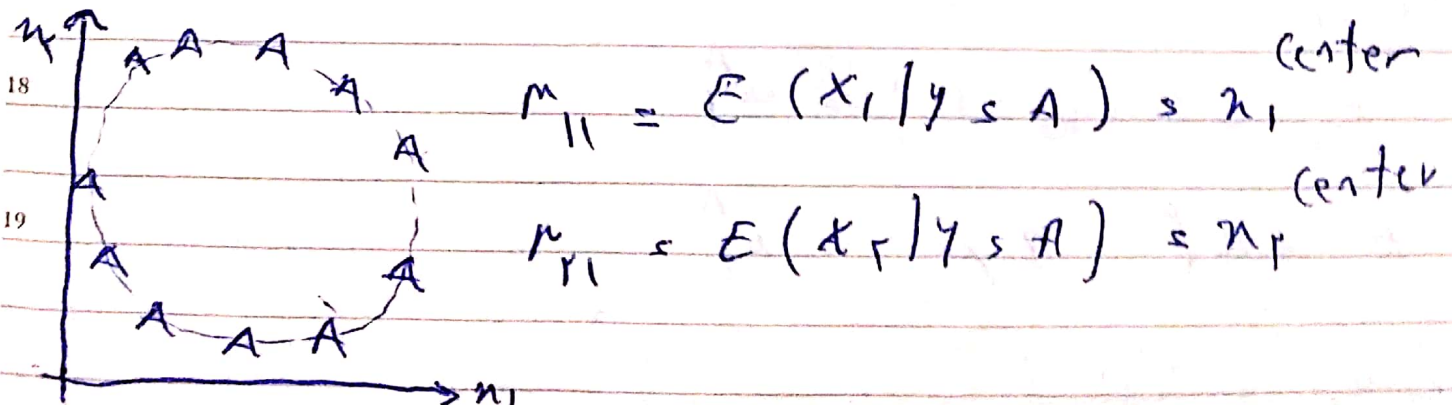
11

A : positive class

$\boxed{\text{figure 3}}$

12

$\mu_{10} = E(x_1 \mid y = B) = x_1^{center}$

13

14 B   B

$0 \rightarrow (x_1^{center}, x_2^{center})$

15

B   B

$\rightarrow x_1$

16

$\mu_{20} = E(x_2 \mid y = B) = x_2^{center}$

17

18 $\mu_{11} = E(x_1 \mid y = A) = x_1^{center}$

19 $\mu_{21} = E(x_2 \mid y = A) = x_2^{center}$

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(7)

$$\to w_1 = \frac{M_{10} - M_{11}}{6_1^\gamma} \leq 0 \qquad w_\gamma = \frac{M_{\gamma 0} - M_{\gamma 1}}{6_\gamma^\gamma} = 0$$

$$P(y=1) = \frac{\Gamma_n}{\gamma \epsilon} \to w_o = \ln \frac{\frac{\gamma}{\gamma \epsilon}}{\frac{\gamma}{\gamma \epsilon}} \quad sh\frac{1}{\alpha} = -\ln \alpha \leq 0$$

$\to$ class is positive or equivalently

the labeled test data belongs to $\boxed{\text{class A}}$

$\boxed{figure \ 4}$

A: positive class
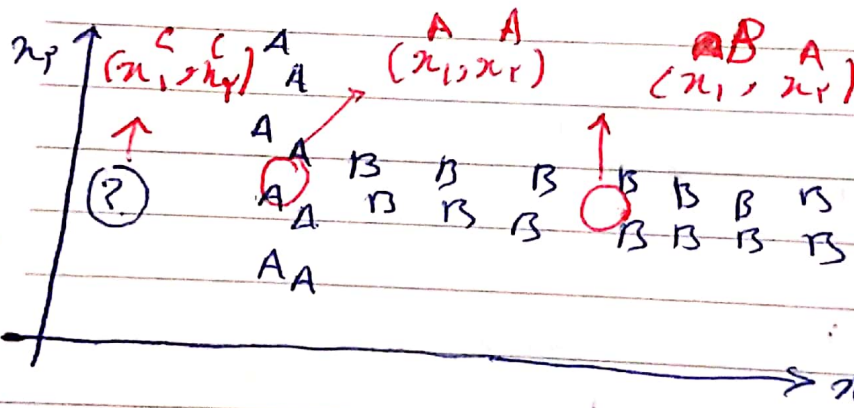
$$P_q \quad M_{10} = E(\lambda_1 | y = B) = x_1^B$$

$$M_{\gamma 0} = E(x_\gamma | y = B) = x_\gamma^A$$

$$M_{11} = x_1^A \qquad , \mu_{\gamma 1} = x_\gamma^A$$

$$\to w_1 = \frac{M_{10} - M_{11}}{6_1^\gamma} = \frac{x_1^B - x_\gamma^A}{6_1^\gamma} \geq 0$$

$$w_\gamma = \frac{M_{\gamma 0} - M_{\gamma 1}}{6_\gamma^\gamma} = 0$$

⑦

07 $W_0 = ?$ $P(y=A) = \dfrac{9}{9+٢٢} = ٠/٢٩.٣$

08

$W_0 = \dfrac{٠/٧.٩٧}{٠/٢٩.٣} + \dfrac{(x_1^B)٢ - (x_1^A)٢}{٢6_1^٢} \gg s$

09

10 $= ٢/٤٤٢٤ + \dfrac{(x_1^B)٢ - (x_1^A)٢}{٢6_1^٢} > 0$

11

12 $\longrightarrow \displaystyle\sum_{i=1}^{٤} w_i x_i + w_0$

13 $= w_1 x_1 + w_0 = A \Big|_{x_1 = x_1^c > 0} > 0$

14 $\longrightarrow$ class is negative ar equivalently

15 the labeled test data belongs to [class B]

١٠
بهمن