$$\tilde{s_i}^2 = \sum_{y \in Y_i} (y - \tilde{m}_i)^2 \tag{24}$$

$$\frac{1}{n}(\tilde{s_1}^2 + \tilde{s_2}^2) \tag{25}$$

$$\tilde{s_1}^2 + \tilde{s_2}^2 \ J(\vec{w}) = \frac{|\tilde{m}_1 - \tilde{m}_2|^2}{\tilde{s_1}^2 + \tilde{s_2}^2} \tag{26}$$