2 3 4 5 6 7

2 4 6 8 0

2 3 5

$$P(Y=c_k \mid X=x)$$

$$= \frac{P(Y=c_k \cap X=x)}{P(X=x)}$$

$$= \frac{\boxed{P(X=x \mid Y=c_k)}\, P(Y=c_k)}{P(X=x)}$$

$$P_e = \frac{\text{错误接收的码元数}}{\text{传输的总码元数}} = \frac{N_e}{N}$$

接收的比特数在传输总比特数中所占的比例，

$$P_b = \frac{\text{错误接收的比特数}}{\text{传输的总比特数}} = \frac{I_e}{I}$$

$$P_b = \frac{\log 2}{\log_2 M}^{\text{错误码元}} = \text{小大}$$

$$\log(P(Y|X)) + -40$$

$$= \sum w_2 f_{(X|Y)}$$

$$= \exp\left(\sum w_i \cdot f_i(x, y) + w_0 - 1 \right)$$

$$= \exp\left(\sum w_i f_i(x, y) \right)$$

$$1 = \frac{\sum e\left(\sum W_i f_i(X,Y)\right)}{e(1-W_0)}$$

$$e(1-W_0) = \sum e\left(\sum W_i f_i(X,Y)\right)$$

$$P_w(Y|X) = \frac{e\left(\sum W_i f_i(X,Y)\right)}{\sum e\left(\sum W_i f_i(X,Y)\right)}$$

$$L(P,w) = \sum_{i=1}^{5} P(y_i)\log P(y_i) + w_1\left(P(y_1) + P(y_2) - \frac{3}{10}\right) + w_0\left(\sum_{i=1}^{5} P(y_i) - 1\right)$$

$$2e^{-w_1 - w_0 - 1} + 3e^{-w_0 - 1}$$

$$\frac{x}{2}(b) - 1 \geq 0$$

$$y_1 b - 1 \geq b$$

$$y_2 b - 1 \geq 0$$

$$b \geq \frac{1}{y_1} \qquad b \leq \frac{-1}{y_2}$$

$$\min_{w,b} \quad \frac{1}{2}\|w\|^2$$

s.t. $\quad y_i(w \cdot x_i + b) - 1 \geqslant 0, \quad i = 1, 2, \cdots, N$

$$\text{minimize} \quad \max_{i=1,\cdots,k} |a_i^T x - b_i|. \tag{1.6}$$

$$t = \max_{i=1 \sim k} |a_i^T x - b_i|$$

$$\min t$$

$$t \geq |a_i^T x - b_i|$$

$$\left|\begin{array}{l} a_i^T x - b_i \leq t \\[2mm] b_i - a_i^T x \leq t \end{array}\right.$$

$$a_i^T x - t \cancel{y_i} \leq b_i$$

$$t^T y = 0$$

$$x^T y = 0$$

$$(a_i^T \cancel{x} - b_i)^2$$

$$= 2(a_i^T x - b_i) \cdot a_i$$

$$= (a_i^T)^2 \geq 0$$

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$1 \leq M = T$

$1 \leq x \leq 1$ $\approx T$

$\{1:2, 1:4\}$

$h_k(n) = h_o(n-k)$

$$e^{ix} =$$

$$e^{ix} = \cos x + i \sin x$$

$$\overline{e^{ix}} = \cos x - i\sin x$$

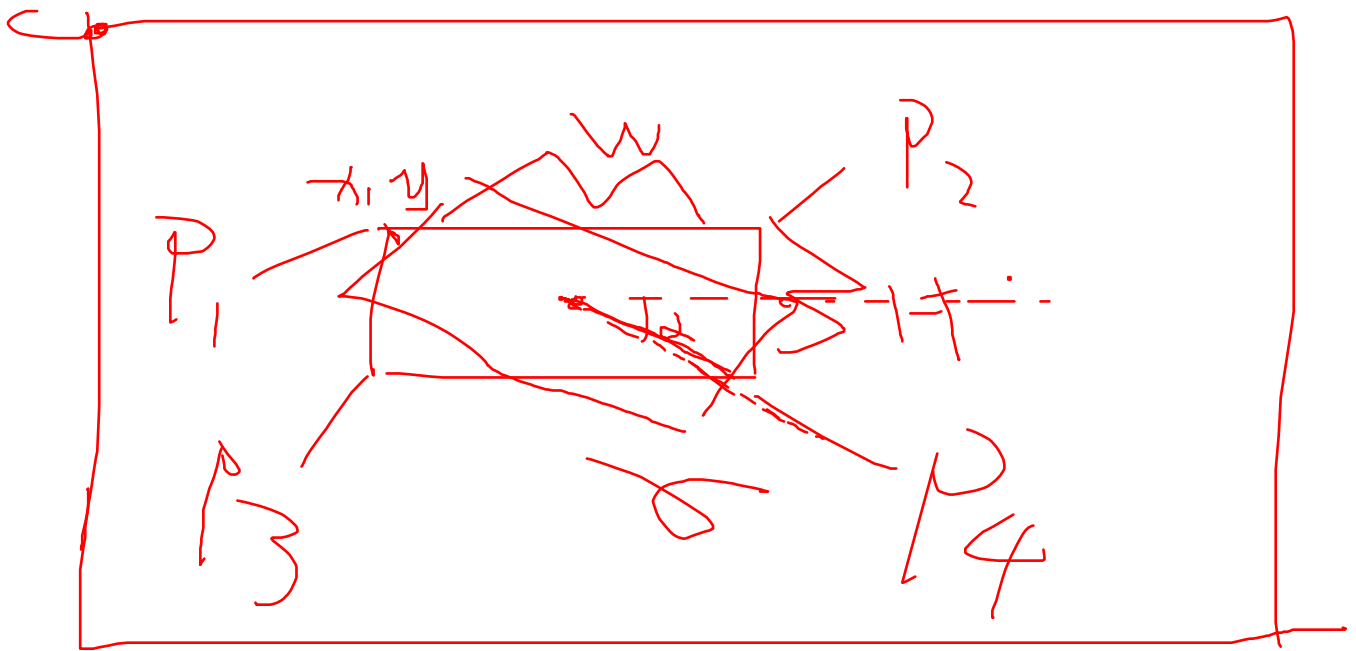$$e^{ix} = e^{\cos x + i\sin(-x)}$$

$$\overline{e^{ix}} = e^{-ix}$$

$$\not{z_1} \not{z_2} \; 5_6 \quad P_1' , P_2' , P_3' , P_4'$$

中心 $= \left(x + \dfrac{w}{2} , y + \dfrac{h}{2} \right)$