$$\frac{n}{2} \ln (2\pi) - \frac{n}{2}$$

$$-\frac{n}{2}\ln(2\pi)-\frac{n}{2}$$

To maximize:  $\frac{\partial L}{\partial (\hat{\beta}_0)} = 0$ 

$$Z = -\frac{n}{2} \ln (2\pi) - \frac{n}{2} \ln (6^2) - \frac{1}{26} \sum_{i=1}^{n} (y_i - \beta_0 - \beta_i x_i)^2$$

$$\frac{n}{2} \ln (2\pi) - \frac{n}{2} \ln (2\pi)$$

 $\frac{1}{26} \sum_{i=1}^{n} (-2y_i + 2\beta_0 + 2\beta_i \times_i) = 0$ 

 $-\frac{1}{26}\left(2\beta_0N + \sum_{i=1}^{2}(-2y_i + 2\beta_i x_i) = 0\right)$ 

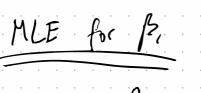
 $-\frac{\beta_{n}n}{6} - \frac{\hat{\Sigma}(-2y_{1}+2\beta_{1}\times i)}{26} = 0$ 

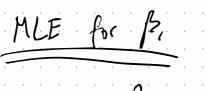
 $2 \stackrel{\frown}{\sum} y_i \qquad 24 \stackrel{\frown}{\sum} \times_i = \frac{\beta_0 \, n}{6}$ 

序。ユインソークトン×



$$\frac{\partial \mathcal{L}}{2 \, \beta_{i}} = -\frac{1}{6^{2}} \, \sum_{i=1}^{2} \left( y_{i} - \beta_{i} - \beta_{i}, x_{i} \right) x_{i}^{2} \delta$$







 $\frac{1}{y^{4}}$  -  $(\bar{y} - \beta, \bar{x}) \bar{x} - \beta, \bar{x}^{2} = 0$ 

 $(ou(x,y)+\overline{x}\cdot\overline{y}-\overline{x}\overline{y}-(\beta,\overline{x}^2)-\beta;(\overline{x}^2)=0$ 

 $\cos\left(x_{i,y}\right) + \beta_{i}\left(-\overline{x}^{2} + \overline{x^{2}}\right) = 0$   $\int_{\mathbb{R}^{2}}^{2} = \frac{\cos\left(x_{i,y}\right)}{\overline{x^{2}} - \overline{x}^{2}} = \frac{\cos\left(x_{i,y}\right)}{\operatorname{Var}\left(x_{i,y}\right)} = \hat{\beta}$ 

 $Var(x) = x^{\frac{1}{2}} - \overline{x}^{2}$ 

yx - dependent theys

- $\frac{0}{\sum_{i=1}^{n} (y_i \times i) \sum_{i=1}^{n} \beta_i \times i} \sum_{i=1}^{n} \beta_i \times i^2 = 0$ 

  - $n \overline{y} = -\beta_0 n \overline{x} n \beta_1 (x^2) = 0$

 $\overline{xy} = cov(x,y) + \hat{x} \hat{y}$