

1. 아래와 동일한 contents가 나타나도록 문서를 구성하시오.

Contents

1	Linear Functions	3
1.1	Slope-Intercept Form	3
1.2	Standard Form	3
1.3	Point-Slope Form	3
2	Quadratic Functions	3
2.1	Vertex Form	3
2.2	Standard Form	3
2.3	Factored Form	3

2. 다음을 입력하시오.

(a)

$$\lim_{n \rightarrow \infty} \sum_{k=1}^n \frac{1}{k^2} = \frac{\pi^2}{6}$$

(b)

$$\sin x = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \cdots$$

(c)

$$\text{corr}(X, Y) = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\left[\sum_{i=1}^n (x_i - \bar{x})^2 \sum_{i=1}^n (y_i - \bar{y})^2 \right]^{1/2}}$$

(d)

$$\left(\begin{array}{c|c|c} 1 & 2 & 3 \\ \hline 4 & 5 & 6 \end{array} \right)$$

(e)

$$\mathbf{X} = \begin{pmatrix} x_{11} & x_{12} & \cdots \\ x_{21} & x_{22} & \cdots \\ \vdots & \vdots & \ddots \end{pmatrix}$$

(f)

$$y = \begin{cases} a, & \text{if } d > c \\ b + x, & \text{in the morning} \\ l, & \text{all the long} \end{cases}$$

(g)

$$f(x; \alpha, \beta) = \begin{cases} \alpha \beta x^{\beta-1} e^{-\alpha x^\beta}, & x > 0 \\ 0, & \text{otherwise} \end{cases}$$