

## Lecture 1: Introduction

Yi, Yung (이웅)

Mathematics for Machine Learning  
KAIST EE

MONTH DAY, 2021

MONTH DAY, 2021

1 / 5

## Outline

- 

MONTH DAY, 2021

2 / 5

- Scalars:  $a, b, c, \alpha, \beta, \gamma$
- Vectors:  $\mathbf{x}, \mathbf{y}, \mathbf{z}$
- Matrices:  $\mathbf{X}, \mathbf{Y}, \mathbf{Z}$
- Sets:  $\mathcal{A}, \mathcal{B}, \mathcal{C}$
- (Ordered) tuple:  $B = (\mathbf{b}_1, \mathbf{b}_2, \mathbf{b}_3)$
- Matrix of column vectors:  $\mathbf{B} = [\mathbf{b}_1, \mathbf{b}_2, \mathbf{b}_3]$
- Set of vectors:  $\mathcal{B} = \{\mathbf{b}_1, \mathbf{b}_2, \mathbf{b}_3\}$
- $\mathbb{R}, \mathbb{C}, \mathbb{Z}, \mathbb{N}, \mathbb{R}^n$

Questions?

1)