

# Notes: Statistics

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## 0 Introduction

Hi, this is a test. Is this your card ♠?

$$x = 3 \tag{1}$$

$$\begin{aligned} \tau &= 2\pi \\ &= \int d\theta \end{aligned}$$

## Part I

# Probability Theory

### 1 Probability

### 2 Random Variables

### 3 Expectation

### 4 Important Inequalities

### 5 Convergence Results

### 6 Distributions

#### 6.1 Normal Distribution

#### 6.2 $t$ -Distribution

#### 6.3 $\chi^2$ -Distribution

## Part II

# Statistical Inference

## 7 Parameter Estimation

## 8 Hypothesis Testing

**Part III**

**Statistical Models and Methods**

**9 Regression**

**10 Classification**