

Introduction to Statistics and Data Science using *eStat*

## Chapter 3 Visualization of Quantitative Data

# 3.3 Visualization of Two Quantitative Variables

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## 3.3 Visualization of Quantitative Data with Two Variables

- Data of two Quantitative variables can be analyzed using a **scatter plot**.
  - => Display data on a two-dimensional plane, with values for one variable being x-axis and for the other being y-axis.
  - => Weight vs Height
- If categorical variables are also measured, a scatter plot can be drawn by separating the colors of each group.
- **Correlation and regression analysis** of the two Quantitative variables are discussed in detail in Chapter 12.

## 3.3 Visualization of Quantitative Data with Two Variables

[Example 3.3.1] (Height and Weight – Two Quantitative variables)

Data on the gender, height and weight of 10 elementary school students are stored

in EX ⇒ eBook ⇒

Ex030301Continuous\_HeightWeightByGender.csv.

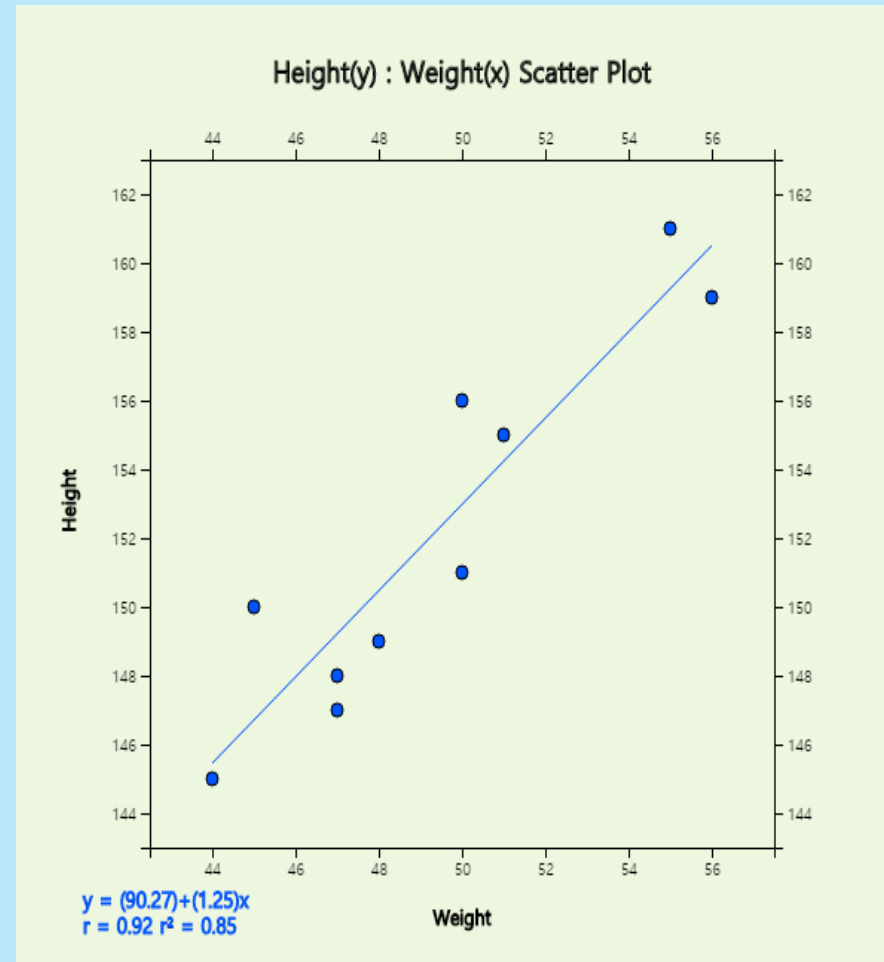
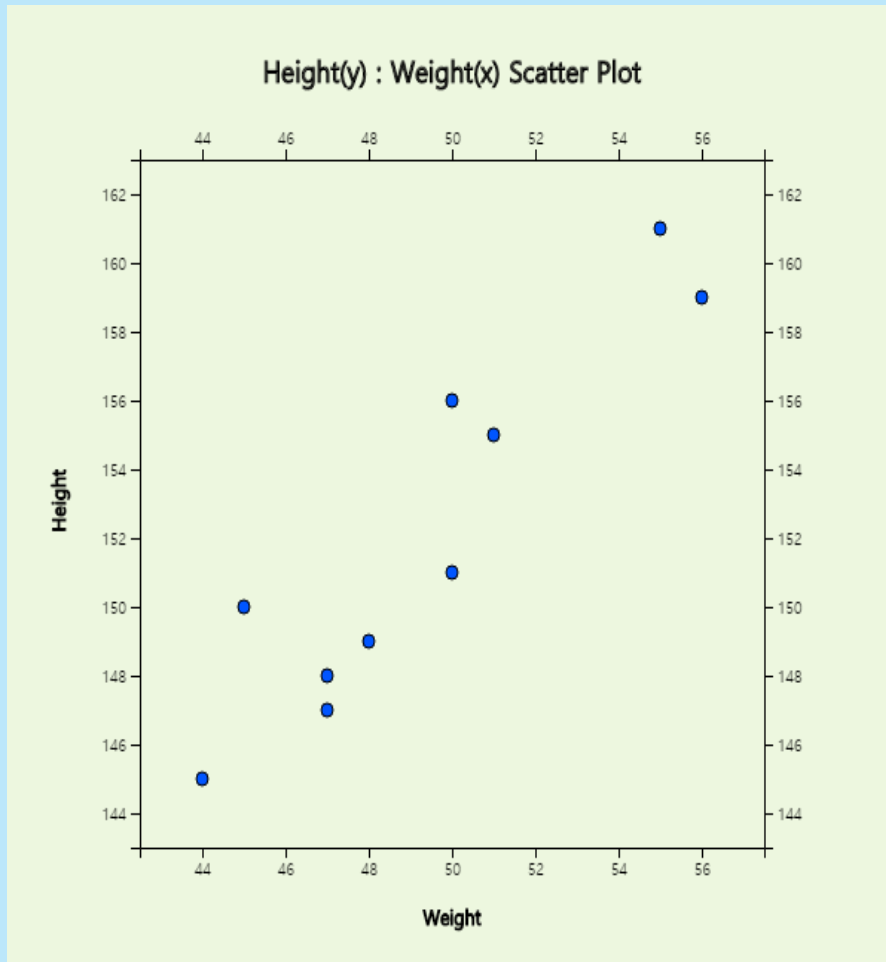
Draw the following graph by using the 『eStat』.

- 1) Draw a scatter plot of height and weight.
- 2) Draw a scatter plot of height and weight by gender group.

	Gender	Height	Weight
1	1	150	45
2	2	147	47
3	1	145	44
4	2	151	50
5	1	149	48
6	2	148	47
7	1	155	51
8	2	156	50
9	1	161	55
10	2	159	56

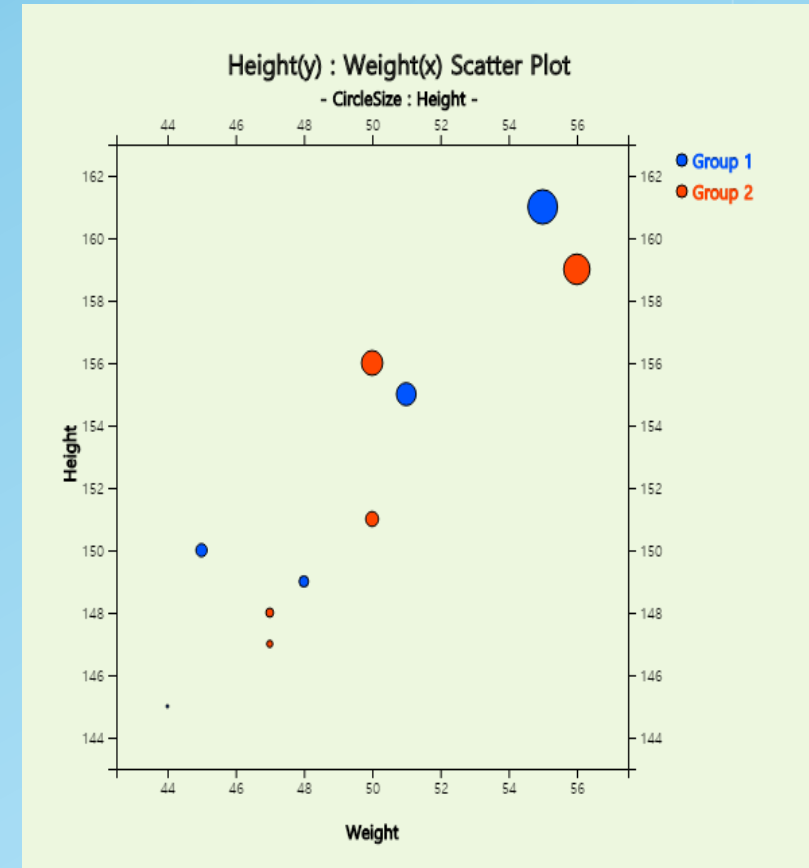
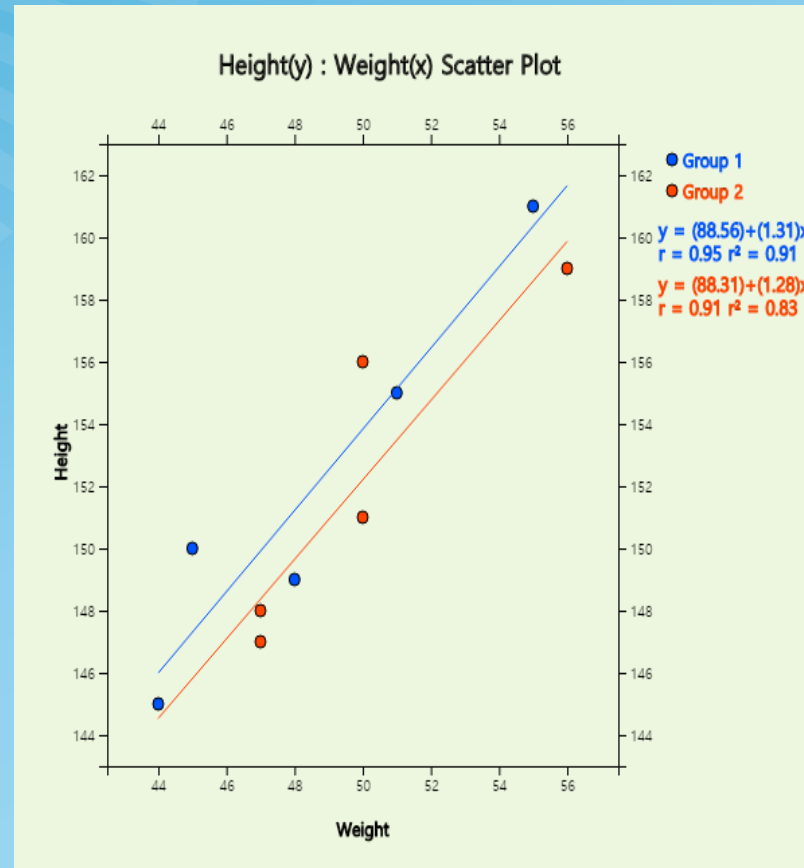
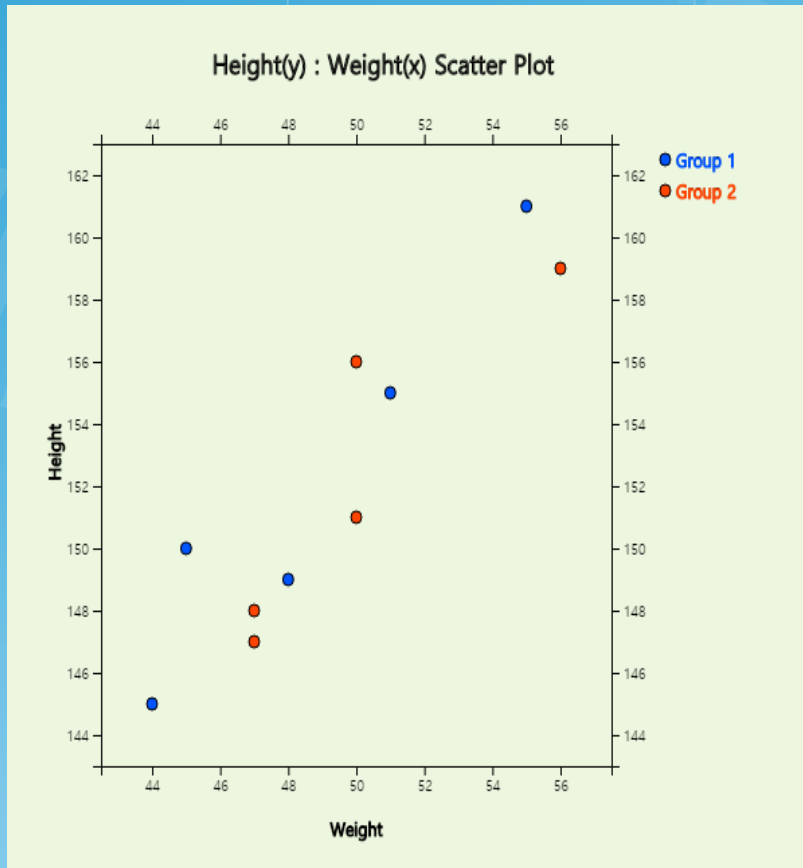
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### [Example 3.3.1] (Height and Weight – Two Quantitative variables)



## 3.3 Visualization of Quantitative Data with Two Variables

### [Example 3.3.1] (Height and Weight – Two Quantitative variables)





Thank you