

**China**

**Northwestern Polytechnical University**

**School of software**

**Software Engineering**

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# **Chapter One**

Descriptive Statistics

**ASSIGNMENT**

prepared by

**ALI HASSAN ABDULHAKIM**

2023280033

**MODERN MATHS AND STATISTICS**

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**Professor:** XIE WENXIAN

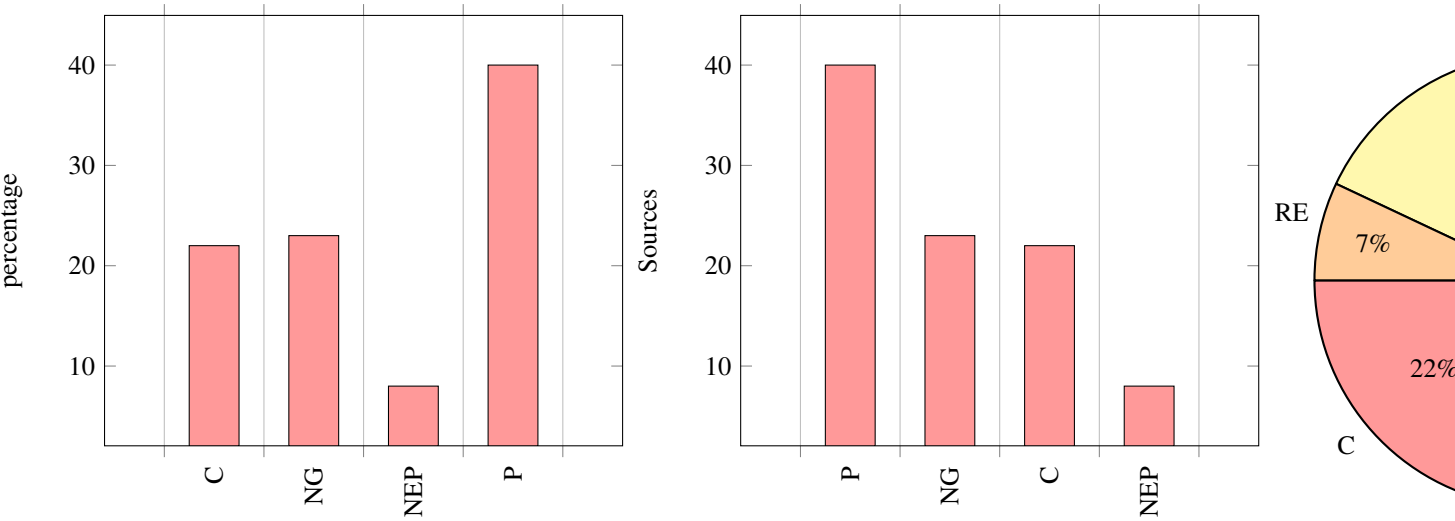
## 1 1.4.3 :

The data in Table 1.9 are presented to illustrate the role of renewable energy consumption in the U.S. energy supply in 2007 (source: <http://www.eia.doe.gov/fuelrenewable.html>). Renewable energy consists of biomass, geothermal energy, hydroelectric energy, solar energy, and wind energy.

- (A) Construct a bar graph
- (B) Construct a Pareto chart.
- (C) Construct a pie chart.

Answer

Answer



## 2 1.4.14:

The following table gives radon concentrations in pCi/liter (picocurie per liter) obtained from 40 houses in a certain area.

|      |     |      |      |      |     |      |      |     |      |
|------|-----|------|------|------|-----|------|------|-----|------|
| 2.9  | 0.6 | 13.5 | 17.1 | 2.8  | 3.8 | 16.0 | 2.1  | 6.4 | 17.2 |
| 7.9  | 0.5 | 13.7 | 11.5 | 2.9  | 3.6 | 6.1  | 8.8  | 2.2 | 9.4  |
| 15.9 | 8.8 | 9.8  | 11.5 | 12.3 | 3.7 | 8.9  | 13.0 | 7.9 | 11.7 |
| 6.2  | 6.9 | 12.8 | 13.7 | 2.7  | 3.5 | 8.3  | 15.9 | 5.1 | 6.0  |

- (A) Construct a stem-and-leaf display and interpret.
- (B) Construct a frequency histogram and interpret.
- (C) Construct a pie chart and interpret.

## Answer

### Stem and Leaf Plot

| Stem | Leaves        |
|------|---------------|
| 0    | 5 6           |
| 1    | 5 5 7 9       |
| 2    | 1 2 7 8 8 9 9 |
| 3    | 5 6 7 8       |
| 5    | 1             |
| 6    | 0 1 2 4 9     |
| 7    | 9 9           |
| 8    | 3 8 8 9       |
| 9    | 4 8           |
| 11   | 5 5 7         |
| 12   | 3 8           |
| 13   | 0 5 7 7       |
| 15   | 9 9           |
| 16   | 0             |
| 17   | 1 2           |