**Business Statistics, Third Canadian Edition**

**Database Exercise Answers**

**Chapter 2 Visualizing Data with Charts and Graphs**

**Question 1**

(p.2-33)

Using the RRSP database, construct a histogram for the variable Average Age of RRSP Contributors. How is the histogram shaped? Is it high in the middle or high near one or both ends of the data? Is it relatively constant in size across the class (uniform), or does it appear to have no shape? Does it appear to be nearly “normally” distributed?

The graph appears to be nearly “normally” distributed with most of the data centered around 43 to 46 years of age.

**Question 2:**

(p.47)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Frequency Distribution - Quantitative | | | | | |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  | ***Energy Index*** |  |  |  |  |  | *cumulative* | |
|  | *lower* |  | *upper* | *midpoint* | *width* | *frequency* | *percent* | *frequency* | *percent* |
|  | 175.0 | < | 210.0 | 192.5 | 35.0 | 11 | 4.3 | 11 | 4.3 |
|  | 210.0 | < | 245.0 | 227.5 | 35.0 | 41 | 16.0 | 52 | 20.2 |
|  | 245.0 | < | 280.0 | 262.5 | 35.0 | 107 | 41.6 | 159 | 61.9 |
|  | 280.0 | < | 315.0 | 297.5 | 35.0 | 64 | 24.9 | 223 | 86.8 |
|  | 315.0 | < | 350.0 | 332.5 | 35.0 | 20 | 7.8 | 243 | 94.6 |
|  | 350.0 | < | 385.0 | 367.5 | 35.0 | 12 | 4.7 | 255 | 99.2 |
|  | 385.0 | < | 420.0 | 402.5 | 35.0 | 2 | 0.8 | 257 | 100.0 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 257 | 100.0 |  |  |

Most of the data center in the middle class and the left endpoint of the histogram. It appears the histogram is not uniform or symmetrical.

**Question 3:**

(p.47)

|  |  |
| --- | --- |
| **Stem** | **Leaf** |
| 4 | 8 9 |
| 5 | 0 1 2 4 5 5 7 |
| 6 | 0 3 |
| 7 | 0 1 3 6 9 |
| 8 | 0 1 1 6 7 9 |
| 9 | 5 |
| 10 | 0 4 5 |
| 11 | 4 4 5 8 |

Over the last 30 years the unemployment rate in UK did not drop below 4.8%. The highest rate of unemployment, 11.8%, occurred in Year 2. The lowest unemployment rate occurred in Year 22, after which the rate steadily climbed to 8.0% by Year 30.