Math 160
Professor Busken
Summarizing and Graphing Data
Name: $\qquad$

For questions 1-6, use the GPA data set given in the table below.

| GPAs of 30 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 2.0 | 3.1 | 1.9 | 2.5 | 1.9 |
| 2.3 | 2.6 | 3.1 | 2.5 | 2.1 |
| 2.9 | 3.0 | 2.7 | 2.5 | 2.4 |
| 2.7 | 2.5 | 2.4 | 3.0 | 3.4 |
| 2.6 | 2.8 | 2.5 | 2.7 | 2.9 |
| 2.7 | 2.8 | 2.2 | 2.7 | 2.1 |

1. Construct a frequency distribution table. Use 8 classes.
2. Construct a relative frequency distribution table.
3. Construct a cumulative frequency distribution table.
4. Construct a histogram.
5. Construct a relative frequency histogram.
6. Construct an ogive.

For question $7-8$, use the data set given in the table below.

| 4.5 | 3.2 | 3.5 | 3.9 | 3.5 | 3.9 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 4.3 | 4.8 | 3.6 | 3.3 | 4.3 | 4.2 |
| 3.9 | 3.7 | 4.3 | 4.4 | 3.4 | 4.2 |
| 4.4 | 4.0 | 3.6 | 3.5 | 3.9 | 4.0 |

7. Construct a stem and leaf plot by using the leading digit as the stem.
8. Construct a stem and leaf plot by using each leading digit twice. Does this technique improve the presentation of the data?

The expenses of Molly's company for last year are summarized in the following table.

| Category | Amount (in thousands) |
| :--- | ---: |
| Accounting | $\$ 22$ |
| Information Technology | 24 |
| Insurance | 10 |
| Total | $\$ 56$ |

9. Construct a pie chart and bar chart to describe the data.
