

The data below represents actual high temperatures between Sept. 1 and Oct. 5 (year unknown), according to Data Set 11 in Appendix B of your textbook. Temperatures are in degrees Fahrenheit. All measurements were recorded near the author’s home.

80 77 81 85 73 73 80 72 83 81 75 78 80 71 73 78 75 63 63 70 77 82 81 76 77 76 74 66 66 62 71 68 66 71 58

1. a) Construct a frequency distribution of the actual high temperatures. Use the classes of 55 – 59, 60 – 64, 65 – 69, and so on.

b) What is the class width?

c) What are the class boundaries of the 80 – 84 class?

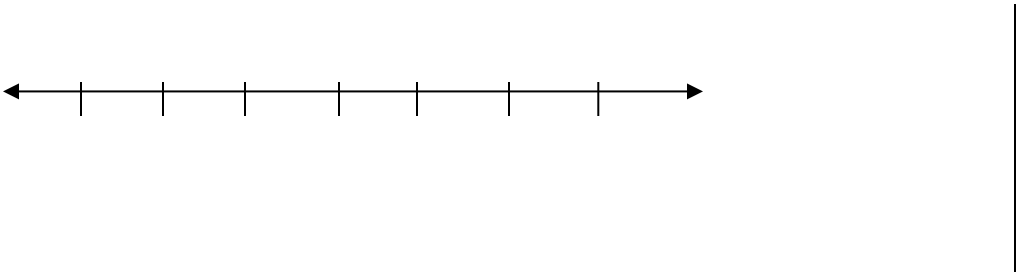
d) What is the class midpoint of the 60 – 64 class?

e) Name the lower and upper class limits of the 55 – 59 class.


2. Construct a relative frequency distribution and cumulative frequency distribution for the actual high temperatures. Round relative frequencies to the nearest tenth.



3. Construct a dotplot and stemplot of the actual high temperatures.



4. Use technology to construct a histogram of the actual high temperatures. Use your histogram to answer the following questions.

a) What is the class width?

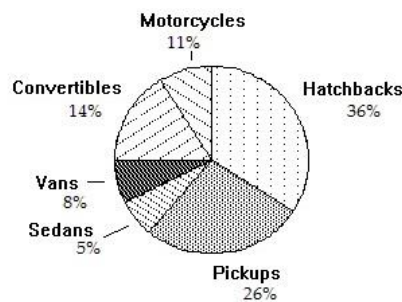
b) Name the lower and upper limit of the class with the highest frequency.

c) Is the distribution normal?

d) According to your histogram, how many temperatures are below 71.5°?

5. After taste testing a new flavor of ice cream at Baskin Robins, 40 people rated the flavor as “delicious”, 75 people rated the flavor as “quite good”, and 35 people rated the flavor as “mediocre”. Determine the percentage of people that rated each flavor.

6. A survey of the 577 vehicles on the campus of State University yielded the following pie chart. How many pickups are registered?



7. The accompanying table represents a frequency distribution of the duration times (in seconds) of 40 eruptions of the Old faithful geyser, as listed in Data Set 15 in Appendix B of your textbook.

a) What is the class width?

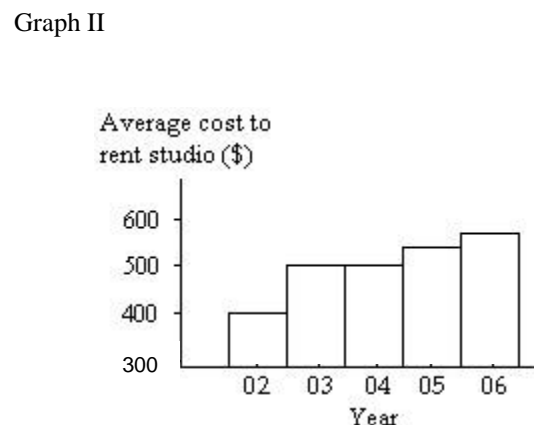
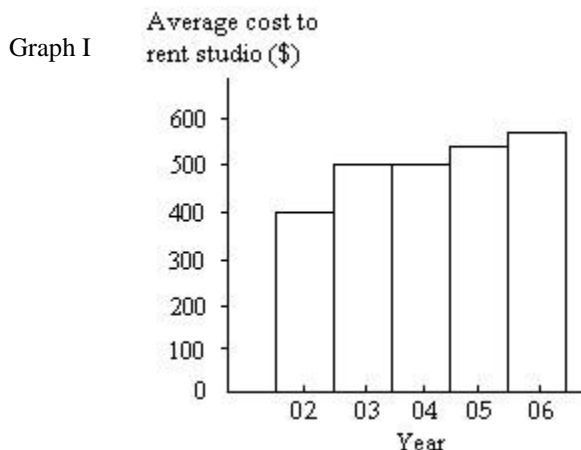
b) What are the upper and lower class limits of the first class?

c) What are the upper and lower class boundaries of the first class?

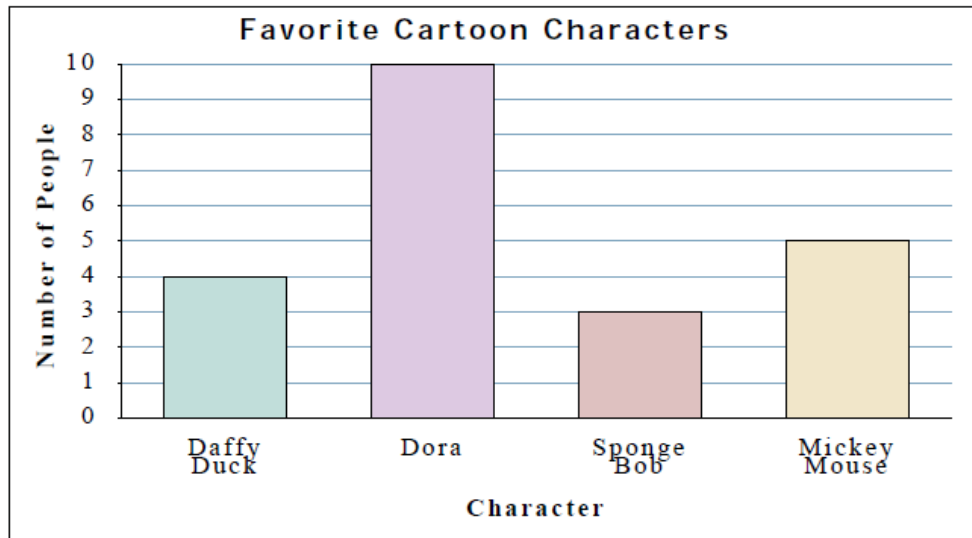
d) Does the distribution of duration times appear to be a normal distribution?

Duration (seconds)	Frequency
100 – 124	2
125 – 149	0
150 – 174	0
175 – 199	1
200 – 224	2
225 – 249	10
250 – 274	22
275 – 299	3

8. The graphs below show the average cost of renting a studio in one city in each of the years 2002 to 2006. By what percentage does the average price appear to increase by from 2002 to 2003 in each graph? Is one of the graphs misleading? If so, which one?



9. A toy company asked its customers which cartoon character was their favorite. They recorded the results in the bar graph below. Use their graph to answer the questions.



- a) Which character did exactly 10 people say was their favorite?
- b) What is the difference in the number of people who liked Mickey Mouse and the number who liked Dora?
- c) What is the combined number of people who liked Sponge Bob and Dora?
- d) How many more people liked Daffy Duck than liked Sponge Bob?
- e) How many fewer people liked Mickey Mouse than liked Dora?

For numbers 10 – 12, determine which graph goes with which table.

10.

Color	People
Blue	1,000
Green	4,000
Orange	8,000
Yellow	7,000
Red	9,000

11.

Color	People
Blue	7,000
Green	9,000
Orange	4,000
Yellow	8,000
Red	1,000

12.

Color	People
Blue	7,000
Green	8,000
Orange	1,000
Yellow	4,000
Red	9,000

