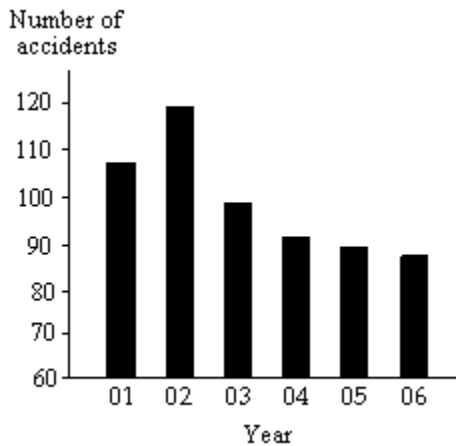


Solutions are included at the end of the worksheet. This worksheet is optional and will not be turned in, but may be helpful in reviewing material and studying for exams.

- 1) A two-pound bag of assorted candy contained 100 caramels, 83 mint patties, 93 chocolate squares, 80 nut clusters, and 79 peanut butter taffy pieces. To create a pie chart of this data, the angle for the slice representing each candy type must be computed. What is the degree measure of the slice representing the mint patties rounded to the nearest degree?  
 A)  $5^\circ$                                       B)  $52^\circ$                                       C)  $69^\circ$                                       D)  $19^\circ$

- 2) The following graph shows the number of car accidents occurring in one city in each of the years 2001 through 2006. The number of accidents dropped in 2003 after a new speed limit was imposed. How is the bar graph misleading? How would you redesign the graph to be less misleading?



- 3) Use a time series plot to display the data. Comment on the trend, Describe the shape of the distribution

The data below represent the consumption of high-energy drinks (in gallons) by adult Americans over a nine-year period.

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009
Consumption (gal)	10	11	11	12	13	14	15	15	13

- 4) A sample of 15 Girl Scouts was selected and their weights (in pounds) were recorded. The results are listed below. Construct a frequency histogram for the data using a class width of 10 and using 95 as the lower limit of the first class.

97 120 137 124 117  
 108 134 126 123 106  
 130 110 100 120 140

- 5) The local police, using radar, checked the speeds (in mph) of 30 motorists in a construction area. The results are listed below. Construct a frequency distribution, a relative frequency distribution, a cumulative frequency distribution, and a relative cumulative frequency distribution using six classes.

44 38 41 50 36 36 43 42 49 48  
 35 40 37 41 43 50 45 45 39 38  
 50 41 47 36 35 40 42 43 48 33

- 6) The scores for an economics test are listed below. Create a stem-and-leaf plot for the data.

87 76 90 77 93 95 88 85 66 89  
 79 94 51 96 83 88 82 58 14 69

- 7) The heights (in inches) of 30 mechanics are listed below. Construct a dot plot for the data.

70 72 71 70 69 73 69 68 70 71  
 67 71 70 74 69 68 71 71 71 72  
 69 71 68 67 73 74 70 71 69 68

- 8) The table below summarizes of the weights of almonds (in grams) for the almonds in a one pound bag. What is the class width of the classes?

Weight (g)	Frequency
0.7585-0.8184	1
0.8185-0.8784	1
0.8785-0.9384	1
0.9385-0.9984	3
0.9985-1.0584	157
1.0858-1.1184	171
1.1185-1.1784	8

A) 0.408

B) 0.4

C) 0.059

D) 0.06

- 9) Describe the shape of the distribution.

A sample of 15 Little League players was selected and their weights (in pounds) were recorded as follows:

97 120 137 124 117  
 108 134 126 123 106  
 130 110 100 120 140

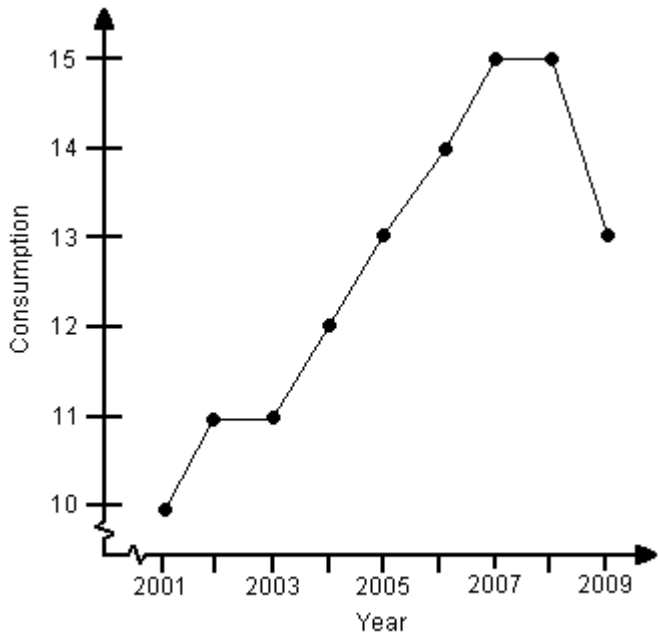
Answer Key

Testname: MATH 1040 WORKSHEET 2

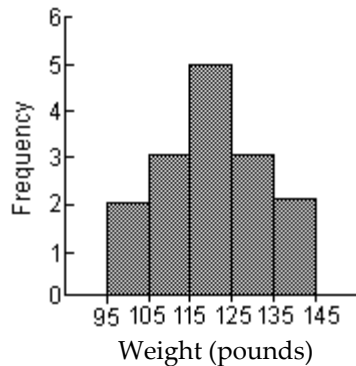
1) C

2) The bar graph is misleading because the vertical axis starts at 60 instead of 0. This tends to indicate that the number of accidents decreased at a faster rate than they actually did. The graph would be less misleading if the vertical scale began at 0 or if a symbol were used to clearly indicate that the vertical scale is truncated and has a gap.

3) In general, there is an increasing trend in high-energy drinks consumption of adult Americans. However, beginning in 2009, there is sign of a decreasing trend.



4)



5)

Speed (in mph)	Frequency	Relative Frequency	Cumulative Frequency	Cumulative Relative Frequency
33-35	3	0.10	3	0.10
36-38	6	0.20	9	0.30
39-41	6	0.20	15	0.50
42-44	6	0.20	21	0.70
45-47	3	0.10	24	0.80
48-50	6	0.20	30	1

Answer Key

Testname: MATH 1040 WORKSHEET 2

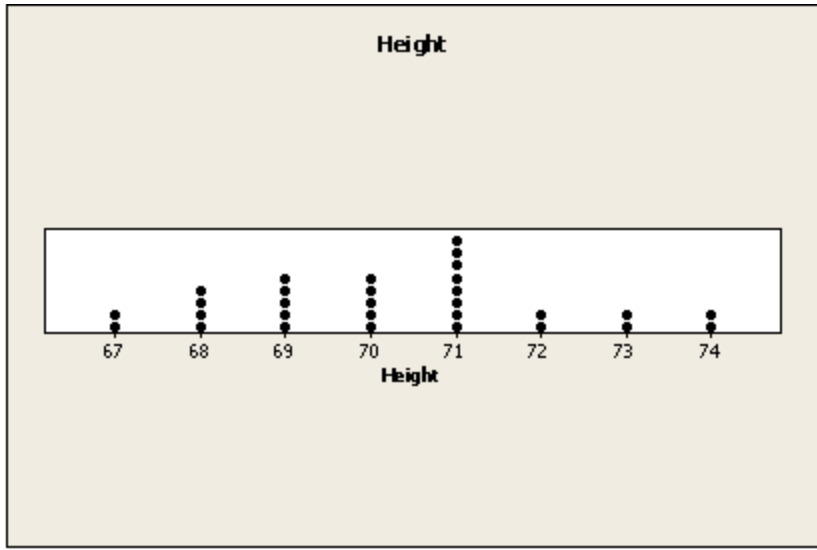
6) The stem will consist of the tens digit and range from 1 to 9. The leaves will be drawn in the appropriate stems based on the data values.

Stem	Leaves
1	4
2	
3	
4	
5	1 8
6	6 9
7	6 7 9
8	7 8 5 9 3 8 2
9	0 3 5 4 6



Stem	Leaves
1	4
2	
3	
4	
5	1 8
6	6 9
7	6 7 9
8	2 3 5 7 8 8 9
9	0 3 4 5 6

7)



- 8) D
- 9) symmetric