

You MUST use good notation and show appropriate work.

# Math 102

Name \_\_\_\_\_

## 15.1 Organizing and Visualizing Data

1. Consider the following set of raw data. The data represents the percentage of revenue spent on research and development by each of 50 companies.

6.3, 9.2, 7.0, 8.0, 5.4, 8.7, 7.3, 11.9, 12.9, 9.7, 10.2, 10.6, 9.8,  
11.9, 8.8, 5.2, 7.6, 8.0, 8.8, 6.8, 7.5, 9.2, 9.4, 8.4, 10.8,  
5.7, 9.4, 8.9, 7.7, 12.8, 9.9, 10.1, 9.3, 10.0, 8.3, 11.6, 9.2, 8.6,  
11.5, 11.6, 12.5, 9.5, 12.4, 13.3, 9.8, 9.1, 11.3, 10.0, 11.2, 13.0

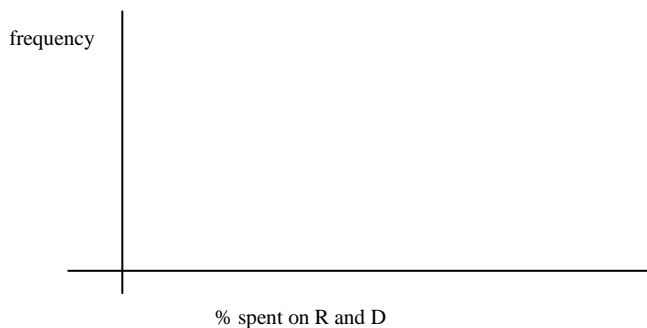
- a) Complete the stem-and-leaf diagram

stem	leaf
5	
6	
7	
8	
9	
10	
11	
12	
13	

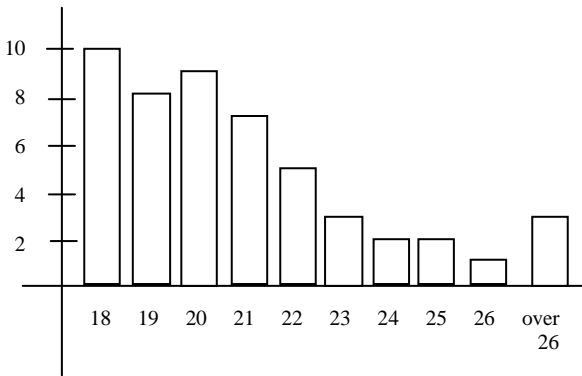
- b) Complete the following frequency and relative frequency table.

class limits	class boundaries	class frequency	relative frequency
5.0-5.9	4.95-5.95		
6.0-6.9	5.95-6.95		
7.0-7.9	6.95-7.95		
8.0-8.9	7.95-8.95		
9.0-9.9	8.95-9.95		
10.0-10.9	9.95-10.95		
11.0-11.9	10.95-11.95		
12.0-12.9	11.95-12.95		
13.0-13.9	12.95-13.95		

- c) Draw the histogram associated with the above frequency table.



2. The ages of people randomly surveyed on a college campus are summarized in the following graph.



- a) How many people were surveyed? \_\_\_\_\_
- b) How many people in the survey were 22 or older? \_\_\_\_\_
- c) How many people in the survey were older than 22? \_\_\_\_\_
- d) How many people in the survey were under 21 years of age? \_\_\_\_\_

3. Agra-Chem has just conducted a comparison test of the effectiveness of two of their pesticides against corn borers. The following represents, for each pesticide, the percent of corn borers eliminated in one application. Represent the two sets of data on a single stem-and-leaf display. What pesticides, if either seems to be more effective?

Pesticide A

72 84 59 70 88  
71 73 69 84 73

Pesticide B

83 74 56 59 72  
70 54 60 78 58