

Chapter 2

Methods for Describing Sets of Data

- 2.1 First, we find the frequency of the grade A. The sum of the frequencies for all five grades must be 200. Therefore, subtract the sum of the frequencies of the other four grades from 200. The frequency for grade A is:

$$200 - (36 + 90 + 30 + 28) = 200 - 184 = 16$$

To find the relative frequency for each grade, divide the frequency by the total sample size, 200. The relative frequency for the grade B is $36/200 = .18$. The rest of the relative frequencies are found in a similar manner and appear in the table:

Grade on Statistics Exam	Frequency	Relative Frequency
A: 90 – 100	16	.08
B: 80 – 89	36	.18
C: 65 – 79	90	.45
D: 50 – 64	30	.15
F: Below 50	28	.14
Total	200	1.00

- 2.3 a. $p_U = \frac{107}{174} = .615$
- b. $p_S = \frac{57}{174} = .328$
- c. $p_R = \frac{10}{174} = .057$
- d. $.615(360) = 221.4$, $.328(360) = 118.1$, $.057(360) = 20.5$
- e. Using MINITAB, the pie chart is:

