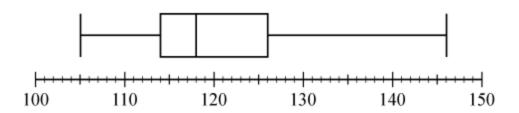
- 1. The daily temperatures, in degrees Fahrenheit, for 10 days in May were 61, 62, 65, 65, 65, 68, 74, 74, 75, and 77.
- (a) Find the mean, median, mode, and range of the temperatures.
- (b) If each day had been 7 degrees warmer, what would have been the mean, median, mode, and range of those 10 temperatures?
- 2. The numbers of passengers on 9 airline flights were 22, 33, 21, 28, 22, 31, 44, 50, and 19. The standard deviation of these 9 numbers is approximately equal to 10.2.
- (a) Find the mean, median, mode, range, and interquartile range of the 9 numbers.
- (b) If each flight had had 3 times as many passengers, what would have been the mean, median, mode, range, interquartile range, and standard deviation of the nine numbers?
- (c) If each flight had had 2 fewer passengers, what would have been the interquartile range and standard deviation of the nine numbers?

- 3. A group of 20 values has a mean of 85 and a median of 80. A different group of 30 values has a mean of 75 and a median of 72.
- (a) What is the mean of the 50 values?
- (b) What is the median of the 50 values?
- 4. Find the mean and median of the values of the random variable *X*, whose relative frequency distribution is given in the table in Data Analysis Figure 24 below.

X	Relative
	Frequency
0	0.18
1	0.33
2	0.10
3	0.06
4	0.33

5. Eight hundred insects were weighed, and the resulting measurements, in milligrams, are summarized in the boxplot in Data Analysis Figure 25 below.



- (a) What are the range, the three quartiles, and the interquartile range of the measurements?
- (b) If the 80th percentile of the measurements is 130 milligrams, about how many measurements are between 126 milligrams and 130 milligrams?
- 6. In how many different ways can the letters in the word STUDY be ordered?
- 7. Martha invited 4 friends to go with her to the movies. There are 120 different ways in which they can sit together in a row of 5 seats, one person per seat. In how many of those ways is Martha sitting in the middle seat?
- 8. How many 3-digit positive integers are odd and do not contain the digit 5 ?
- 9. From a box of 10 lightbulbs, you are to remove 4. How many different sets of 4 lightbulbs could you remove?
- A talent contest has 8 contestants. Judges must award prizes for first, second, and third places, with no ties.
- (a) In how many different ways can the judges award the 3 prizes?
- (b) How many different groups of 3 people can get prizes?