31. Pilot error is the most serious threat to aviation safety. Better training and stricter pilot requirements can improve aviation safety.

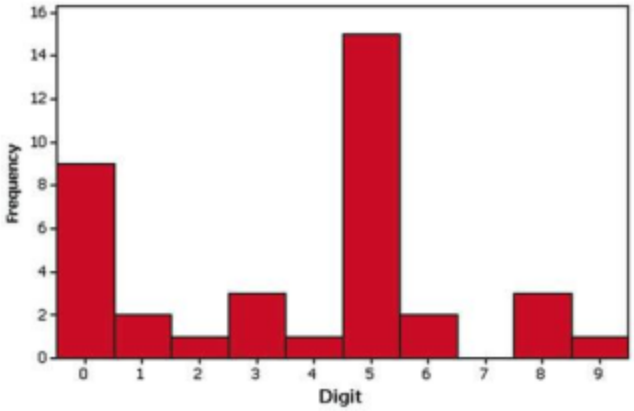
Cause	Relative Frequency
Pilot Error	50.5%
Other Human Error	6.1%
Weather	12.1%
Mechanical	22.2%
Sabotage	9.1%

33. An outlier can dramatically affect the frequency table.

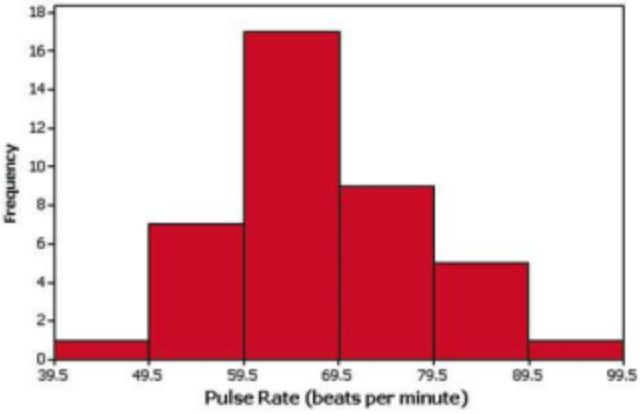
Weight (lb)	With Outlier	Without Outlier
200–219	6	6
220–239	5	5
240–259	12	12
260–279	36	36
280–299	87	87
300–319	28	28
320–339	0	
340–359	0	
360–379	0	
380–399	0	
400–419	0	
420–439	0	
440–459	0	
460–479	0	
480–499	0	
500–519	1	

Section 2-3

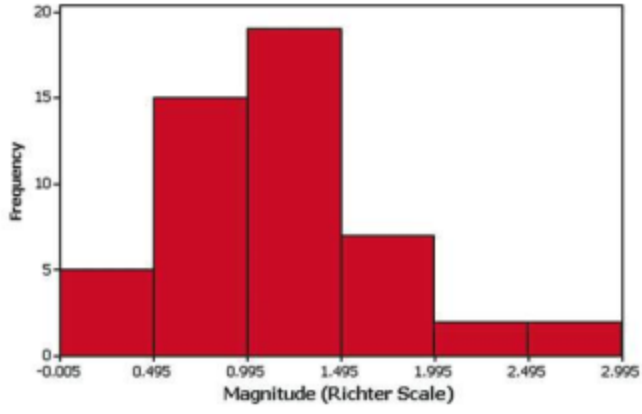
1. It is easier to see the distribution of the data by examining the graph of the histogram than by examining the numbers in a frequency distribution.
3. With a data set that is so small, the true nature of the distribution cannot be seen with a histogram. The data set has an outlier of 1 min. That duration time corresponds to the last flight, which ended in an explosion that killed the seven crew members.
5. Identifying the exact value is not easy, but answers not too far from 200 are good answers.
7. The tallest person is about 108 in., or about 9 ft, tall. That tallest height is depicted in the bar that is farthest to the right in the histogram. That height is an outlier because it is very far away from all of the other heights. That height of 9 ft must be an error, because nobody is that tall.
9. The digits 0 and 5 seem to occur much more often than the other digits, so it appears that the heights were reported and not actually measured. This suggests that the results might not be very accurate.



11. The histogram does appear to depict a normal distribution. The frequencies increase to a maximum and then decrease, and the histogram is symmetric with the left half being roughly a mirror image of the right half.



13. The histogram appears to roughly approximate a normal distribution. The frequencies increase to a maximum and then tend to decrease, and the histogram is symmetric with the left half being roughly a mirror image of the right half.



15. The histogram appears to roughly approximate a normal distribution. The frequencies increase to a maximum and then decrease, and the histogram is symmetric with the left half being roughly a mirror image of the right half.