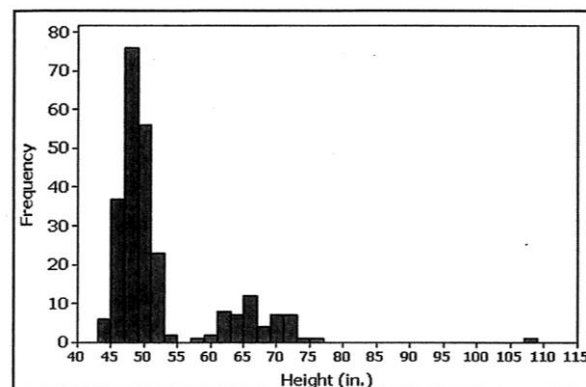


2.3 Assignment: p.58-59 #3, 4, 5-8, 11-12 (for #12 create a relative frequency histogram)

3. NASA provides these duration times (in minutes) of all flights of the space shuttle Challenger: 7724, 8784, 8709, 11476, 10060, 11844, 10089, 11445, 10125, 1. Why does it not make sense to construct a histogram for this data set? What is notable about this data set?

4. When it refers to a normal distribution, does the term “normal” have the same meaning as in ordinary language? What criterion can be used to determine whether the data depicted in a histogram have a distribution that is approximately a normal distribution? Is this criterion totally objective, or does it involve subjective judgment?

For questions 5-8, refer to the following Minitab-generated histogram which represents the heights (in inches) of people randomly selected from those who entered NYC’s Museum of Natural History on a Friday morning.



5. What is the approximate number of people with heights of 55 in. or less?

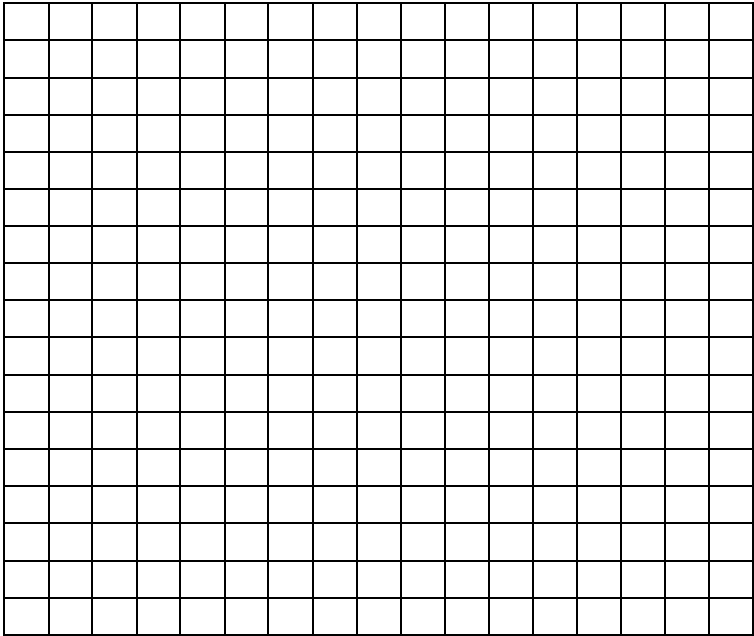
6. What is the class width? What are the approximate lower and upper class limits of the first class?

7. What is the height of the tallest person included in the histogram? Where on the histogram is that height depicted? Is that height an outlier? Could that height be an exceptional value that is correct, or is it an error? Explain.

8. What is a reasonable explanation for the gap between the group of people with heights between 43 inches and 55 inches, and the group of people with heights between 57 inches and 77 inches?

11. Use the frequency distribution for the pulse rates of males (Question 21 from Section 2.2) to construct a histogram. Does the histogram appear to depict data that have a normal distribution? Why or why not?

<u>Male Pulse Rates (beats per minute)</u>	<u>Frequency</u>
40-49	1
50-59	7
60-69	17
70-79	9
80-89	5
90-99	1



12. Use the frequency distribution for the pulse rates of females (Question 22 from Section 2.2) to construct a relative frequency histogram. Does the histogram appear to depict data that have a normal distribution? Why or why not?

<u>Female Pulse Rates (beats per minute)</u>	<u>Frequency</u>	<u>Relative Frequency</u>
50-59	1	
60-69	8	
70-79	18	
80-89	5	
90-99	6	
100-109	2	

