AP Statistics Part 1 Practice

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- 1. The following plots were created:
 - (a) Stem and leaf plot:

Figure 1: Stem and Leaf Plot of Women's Heights (in.)

Stem	Le	af		
50	2			
51				
52				
53	2			
54				
55				
56	7			
57	4	9		
58	6	9		
59	0	3	3	
60				
61	4			
62	1	1	4	4
63	1	1	3	
64				
65	4	6		
66				
67	7			
68	5	5		
69				
70	4	5		

(b) Frequency table:

Table 1: Frequency Table of Women's Heights (in.)

Interval	Frequency
[50.2, 52.7)	1
[52.7, 55.2)	1
[55.2, 57.7)	2
[57.7, 60.2)	6
[60.2, 62.7)	5
[62.7, 65.2)	3
[65.2, 67.7)	2
[67.7, 70.2)	3
[70.2, 72.7)	2

(c) Histogram:

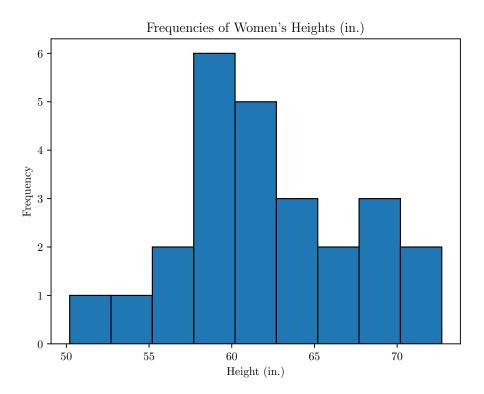


Figure 2: A histogram showing women's heights (in inches)

(d) Pie chart:

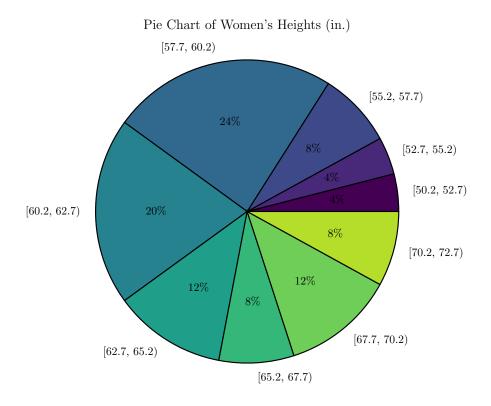


Figure 3: A pie chart showing women's heights (in inches)

(e) Box plot:

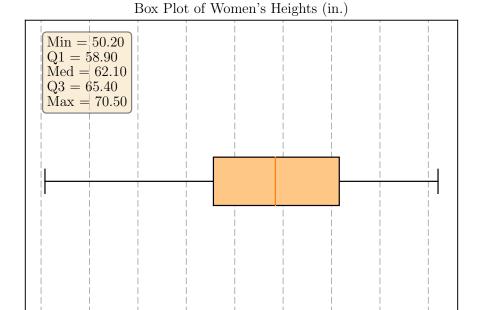


Figure 4: A box plot showing women's heights (in inches)

Height (in.)

60.0

62.5

65.0

67.5

70.0

57.5

50.0

52.5

55.0

2. These data were used to compute the following sample summative statistics:

Table 2: Summative statistics about women's heights (in inches)

Statistic	Value		
Mean	61.88		
Median	62.1		
Midrange	60.4		
Mode	68.5, 63.1, 62.4, 62.1, 59.3		
Range	20.3		
Standard Deviation	5.07		
Variance	25.68		

3. The data set is not normally distributed; this can be most easily seen from the shape of the histogram, which does not resemble a bell curve. It is not symmetric because it is skewed to the left. I know this because there is a whale tail.