

Day 5

1. A random sample of the number of hours per week worked by 50 students with part-time jobs is given below.

16	9	10	24	15	10	8	18	22	20
12	20	6	13	9	4	24	14	17	3
5	18	11	8	20	12	10	5	18	6
15	12	28	12	16	26	12	14	4	24
30	16	5	18	21	4	14	8	12	7

- Find the mean and median of the data
 - Find the standard deviation and IQR of the data
 - Are there any outliers according to the 1.5 IQR rule?
 - Draw a box plot of the data
 - Make a frequency distribution of the data
 - Draw a histogram for the data
 - Is the data positively skewed, negatively skewed or approximately symmetric?
 - Which measure of center would most accurately reflect the number of hours worked by the students?
2. The data below shows the selling prices for 37 homes recently sold in a small neighborhood.

Housing Price	No. of Houses Sold
less than \$400,000	0
\$400,000--\$420,000	1
\$420,000--\$440,000	3
\$440,000--\$460,000	7
\$460,000--\$480,000	8
\$480,000--\$500,000	6
over \$500,000	12

- Draw a histogram for the distribution table.
 - Is the data positively skewed, negatively skewed or approximately symmetric?
 - If you were a realtor trying to sell a young couple a home in this neighborhood, which measure of center would you be likely to report? Why?
3. The data below shows the weights of a sample of pies made at two bakeries.

Pam's Pie Palace	
Pie	Pie Weight
A	377g
B	392g
C	338g
D	333g
E	418g
F	402g
G	319g
H	324g

Peter's Pie Plaza	
Pie	Weight
A	355g
B	367g
C	340g
D	349g
E	358g
F	344g
G	366g

- Make a stacked box plot to display the data.
- Describe the shape, center and spread of each distribution.
- Based on your findings, where would you prefer to buy your pies? Explain your answer.