Data Experiments

Name: _____

Date: _____ Per: _____

Station 1: Penny Toss
- Set up a target on the floor. Stand five feet away from the target.
- Each team member should toss a penny at the target five times.
- For each toss, measure the distance from the center of the target to the center of the coin. Don't discard data from any toss, even if the penny rolls. Record measurements in the chart below.
- Add your group data to the class data.

Name	Toss 1	Toss 2	Toss 3	Toss 4	Toss 5

Station 2: Five Seconds
- Look at the second hand of an analog clock while you hold a stopwatch.
- Using the analog clock as a guide, start the stopwatch and then stop it when five seconds have passed. Read the time off the stopwatch and record it on the chart below
- Each team member should repeat this five times.
- Add your group data to the class data.

Name	Time 1	Time 2	Time 3	Time 4	Time 5

Station 3: Rolling a Die
- Roll a die five times. Record the result for each roll in the chart below
- Add your group data to the class data.

Name	Roll 1	Roll 2	Roll 3	Roll 4	Roll 5

Frequency Tables

- Use the class data from each station to create a frequency table.
- For Penny Toss and Five Seconds, use about 12 bins of equal width.

Station 1: Penny Toss

Distance	Frequency

Station 2: Five Seconds

Time	Frequency

Station 3: Rolling a Die

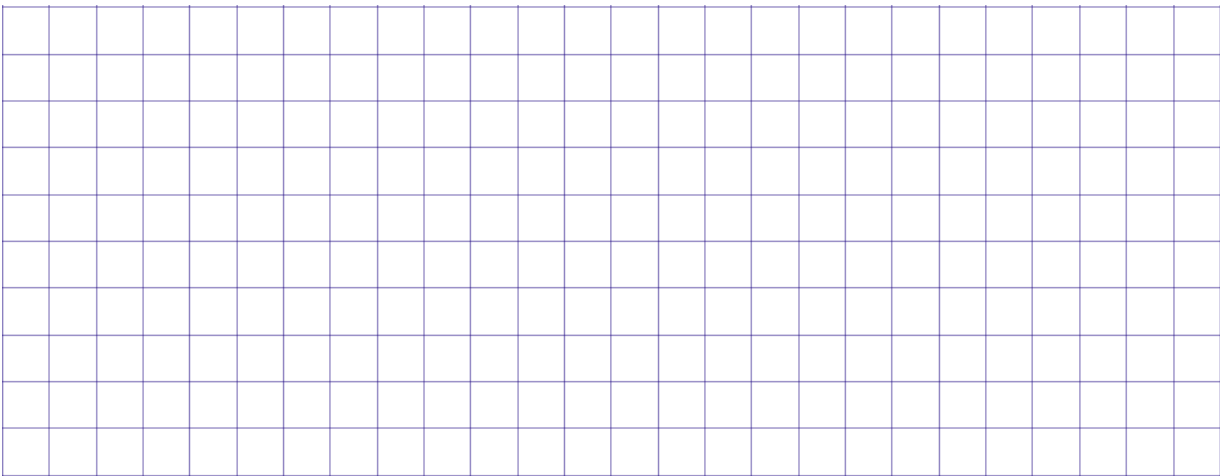| Number	Frequency
1	
2	
3	
4	
5	
6	

Histograms and Box Plots

- Use your frequency tables to make a histogram of each data set.
- Above each histogram, make a box plot by calculating the values of the five-number summary (minimum, lower quartile, median, upper quartile, maximum).
- Measure the spread of each data distribution by calculating the interquartile range (IQR).

Station 1: Penny Toss
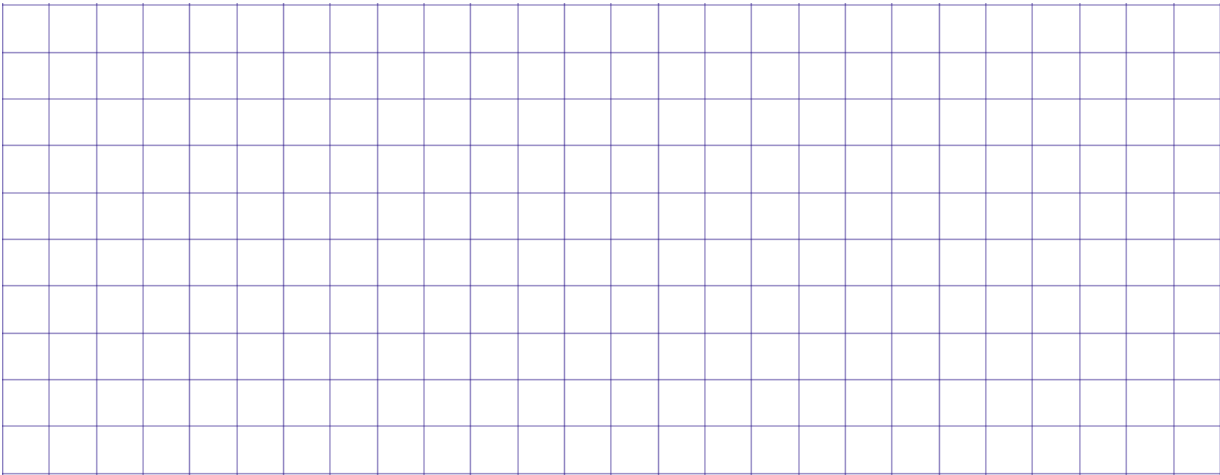
Station 2: Five Seconds

Station 3: Rolling a Die