Class Time:

Names:

SAMPLING AND DATA: DATA COLLECTION LAB I

STUDENT LEARNING OUTCOMES:

- The student will demonstrate the systematic sampling technique.
- The student will construct Relative Frequency Tables.
- The student will interpret results and their differences from different data groupings.

COLLECT THE DATA

Ask five classmates from a different class how many movies they saw last month at the theater. Do not include rented movies.

Record the data:

1.
2.
3.
4.
5.

In class, randomly pick one person. On the class list, mark that person's name. Move down four people's names on the class list. Mark that person's name. Continue doing this until you have marked 12 people's names. You may need to go back to the start of the list. For each marked name, record below the five data values. You now have a total of 60 data values.

For each name marked, record the data:

Sample of Class Survey Results

COMPLETE THE TABLES

Complete the two relative frequency tables below using your class data.

Frequency of Number of Movies Viewed

Number of Movies	Frequency	Relative Frequency	Cumulative Relative Frequency
0			
1			
2			
3			
4			
5			
6			
7+			

Frequency of Number of Movies Viewed

Number of Movies	Frequency	Relative Frequency	Cumulative Relative Frequency
0 - 1			
2 - 3			
4 - 5			
6 – 7+			

EXERCISE 1

Using the tables, find the percent of data that is at most 2. Which table did you use and why?

EXERCISE 2

Using the tables, find the percent of data that is at most 3. Which table did you use and why?

EXERCISE 3

Using the tables, find the percent of data that is more than 2. Which table did you use and why?

EXERCISE 4

Using the tables, find the percent of data that is more than 3. Which table did you use and why?

DISCUSSION QUESTIONS

EXERCISE 5

Is one of the tables above "more correct" than the other? Why or why not?

EXERCISE 6

In general, why would someone group the data in different ways? Are there any advantages to either way of grouping the data?

EXERCISE 7

Why did you switch between tables, if you did, when answering exercises 1 - 4?