

# Unit 9 - Relations Review

## Key Topics

- Primary vs. Secondary Data
- Types of Sampling (simple random, systematic random, stratified random)
- Scatter Plots - Dependent and Independent Variables
- Lines and Curves of Best Fit
- Interpolation and Extrapolation
- Distance/Time Graphs

## Review Questions

Identify the type of sampling in the following examples:

1. You randomly choose students proportionately from each grade based on the number of students in the grade.

Stratified Random Sample

2. Students are chosen by randomly selecting a student number from a list and then choosing every tenth person after that.

Systematic Random Sample

3. You select students in your phys ed class to interview about the need for newer gym equipment.

Non-Random (Bias)

4. All students names are put in a hat and 100 names are selected randomly to interview.

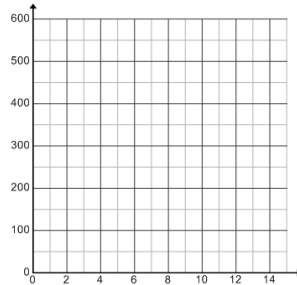
Simple Random Sample

Graphing and Analyzing Sample Question:

Two ships are travelling on parallel courses that are 10 km apart. This table shows the distance between the two ships over a 12-hour period.

1. Identify the dependent and independent variables.
2. Make a scatter plot of the data.

Time (h)	Separation (km)
0	575
1	530
2	500
3	445
4	410
5	380
6	330
7	300
8	255
9	210



3. Describe the relationship between the variables and draw a line of best fit.

Graph the data and describe the relationship between the variables. Draw a line of best fit.

4. Identify any outliers.
5. Predict when the ships will be closest. Did you use interpolation or extrapolation to make your prediction?

## Assigned Work

Pgs 95 – 97 # 1 – 13

Pgs 98 – 99 # 1 – 10

**TEST NEXT CLASS!!**