

Name _____ Date _____ Hour _____

Problem 1.1: Interpreting Tables

A) Do the jumping jack experiment. For each jumper, prepare a table for recording the total number of jumping jacks after every 10 seconds, up to the total time of 2 minutes (120 seconds).

Jumper # 1


Time (Seconds)	0	10	20	30	40	50	60	70	80	90	100	110	120
Total Number of Jumping Jacks													
Total Number of Jumping Jacks													

B) How did the jumping jack rates (the number of jumping jacks per second) change as time passed? How is this shown in your tables?

C) What might this pattern suggest about how bike-riding speed would change over a day's time on the bicycle tour?

A **variable** is a quantity that changes or varies. What are the VARIABLES in this situation?

Independent Variable is on the X-Axishorizontal axis 

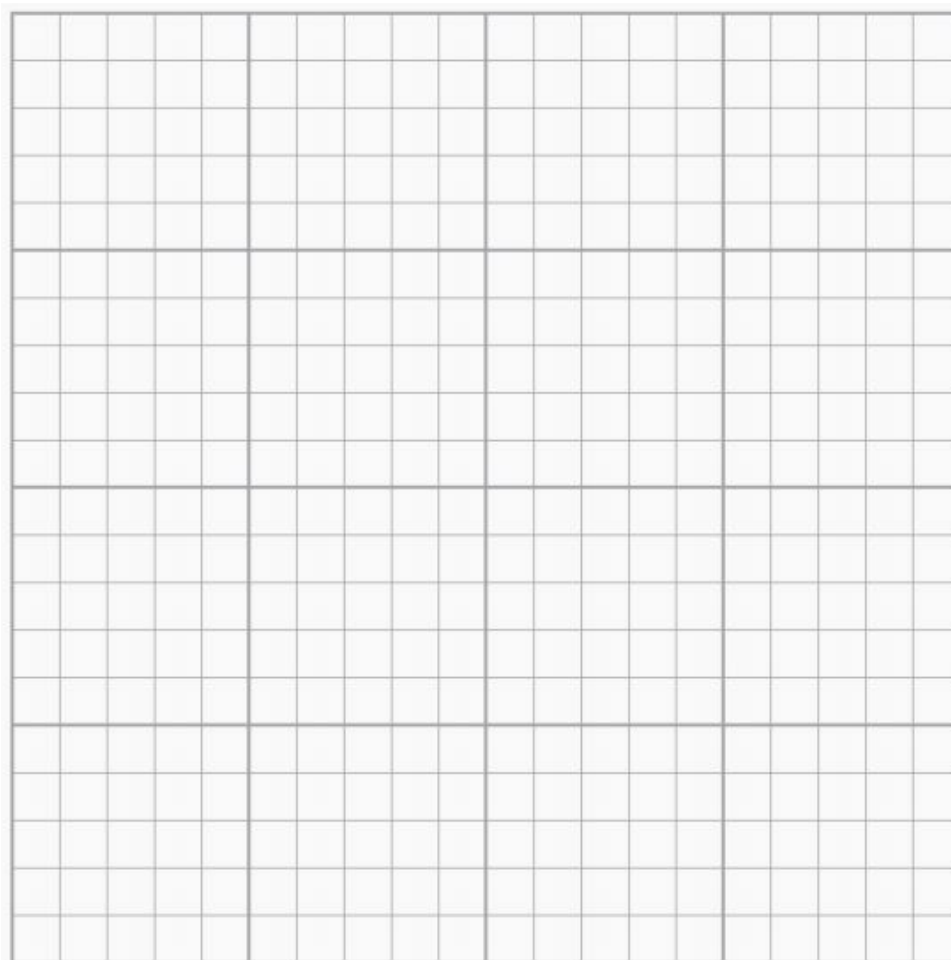
Dependent Variable is on the Y-Axis....the vertical axis.  The dependent variable data **DEPENDS** on the independent variable. For example, the number of jumping jacks that you can do depends on the amount of time given to do them. This makes the jumping jacks dependent upon the time.

Time is the independent variable and it goes on and on no matter what.

Problem 1.2: Making Graphs

Time (Seconds)	10	20	30	40	50	60	70	80	90	100	110	120	
Jumping Jacks completed in 10 Seconds													
Total Number of Jumping Jacks													

A) Make a graph of the jumping jack data for one of the jumpers in your group.



B) What does your graph show about the jumping jack rate as time passes? (Another way to say this is, "what does your graph show about the **relationship** between the number of jumping jacks and time?")

C) Is the relationship you found between the number of jumping jacks and time easier to see in the table or in the graph? Please explain why you chose the table or the graph.