

**Least Square Regression Line**

**Hours of Study & Exam Scores**

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_ Score \_\_\_\_\_

1. The table below gives the number of hours, (h), spend studying and the fianl exam scores, G. In part 1, you created a scatter plot and determined your "line of best fit".

In part 2, we will use the Least Square Regression Line (LSRL) to find the actual "line of best fit".

- a) Using your graphing calculator, write the function using LSRL:  
Function: \_\_\_\_\_
- b) Using your graphing calculator, enter the function in Y<sub>1</sub> and complete the "Predicted" column.
- c) Calculate or use the graphing calculator to complete the "Residual" column.

Hours of Study (h)	Grade G	Predicted G(h)	Residual
2	77		
5	92		
1	70		
0	63		
4	90		
2	75		
3	84		
Sum of Residuals:			

- 2.
- a) Use the "LinReg" function in your calculator again to find the correlation coefficient:  
  
r = \_\_\_\_\_
  - b) Describe the strength of the linear model:  
  
\_\_\_\_\_