

Least Square Regression Line**Hours of Exercise & Body Fat**

Name _____ Date _____ Period _____ Score _____

1. The table below gives the number of hours, (h), spend exercising and the percent of body fat, B. 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_1 and complete the "Predicted" column.

- c) Calculate or use the graphing calculator to complete the "Residual" column.

Hours of Exercise/week (h)	Body Fat % B	Predicted B(h)	Residual
2.5	23		
5	17		
1.5	20		
0	31		
4	16		
2	23		
3	26		
6	12		
3.5	20		
1	26		
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:
