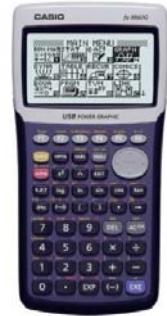


CASIO eLearning Activities



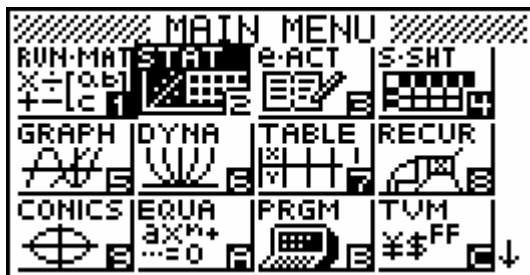
Line of Best Fit

Make a Scatter Plot of the data. Draw a Line of Best Fit. Write an equation of the line.

Using this information.

X	0	1	2	3	4
Y	15	35	53	74	94

Calculator on go to and press **EXE**



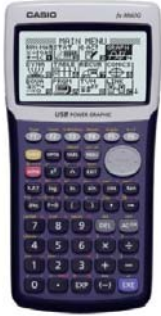
Delete any information in List 1 and List 2

Input the following data in list 1 and list 2

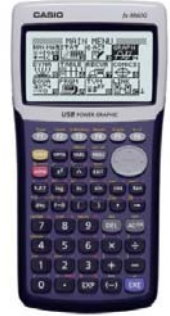
0 **EXE** **1** **EXE** **2** **EXE** **3** **EXE** **4** **EXE** **▶** **1** **5** **EXE** **3** **5** **EXE** **3** **EXE** **7** **4** **EXE**
9 **4** **EXE**

SUB	List 1	List 2	List 3	List 4
1	0	15		
2	1	35		
3	2	53		
4	3	74		

At the bottom of the screen, the menu options **GRAPH**, **CALC**, **TEST**, **INTR**, and **DIST** are visible.

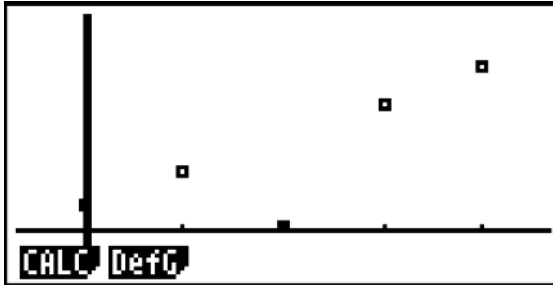


CASIO eLearning Activities



Press the following buttons.

F1 **F1**



This is the graph of the information in list 1 and list 2

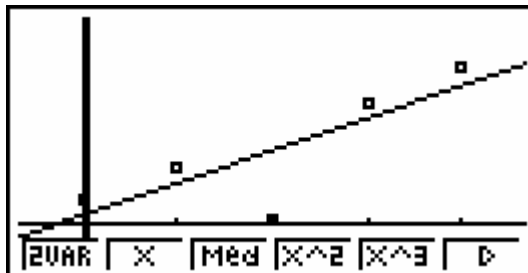
Press the following keys.

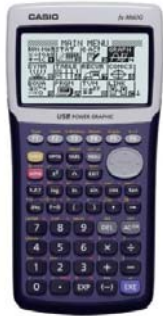
F1 **F2**

```
LinearReg
a =19.7
b =4.8
r =0.80406153
r^2=0.64651495
MSe=707.3
y=ax+b
COPY DRAW
```

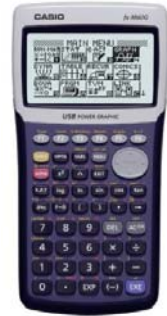
The line of Best Fit is $y = ax + b$, then the equation for the line is.

$$y=19.7x+ 4.8.$$





CASIO eLearning Activities



Practice.

1. Write a line of best fit equation for the data below.

X	0	2	4	8	10
Y	-2	6	15	38	50

2.

a. Make a scatter Plot of the data;

Study Time (hours)	1.5	0.5	0.5	1	1	3	2.5	3	0
Grade	90	60	70	72	80	88	89	94	58

- b. Write an equation that models a student's exam grade as a function of the time (in hours) the student spent studying for the exam.
- c. How many hours would you have to study to earn a grade of 93 on the exam? Justify your answer.