

## Stats: Product Moment Correlation Co-efficient Notes

Product Moment Correlation Co-efficient (PMCC),  $r$ , shows us the linear correlation of bivariate data. It gives a number between  $-1$  and  $+1$ .

- $-1$  is perfect **negative** correlation. The closer the PMCC is to  $-1$ , the better the negative correlation
- $+1$  is perfect **positive** correlation. The closer the PMCC is to  $+1$ , the better the positive correlation
- $0$  is perfect **zero** correlation. The closer the PMCC is to  $0$ , the lower the correlation of the data

### How to calculate PMCC

Casio fx-991EX Classwiz	Casio fx-CG50
1) Press MENU	1) Press MENU
2) Select 6:Statistics	2) Select 2 Statistics
3) Select 2:y=a+bx	3) Enter the data into the table
4) Enter the data into the table	4) Select CALC (F2)
5) Press AC	5) Select REG (F3)
6) Press OPTN	6) Select X (F1)
7) Select 3:Regression Calc	7) Select a + bx (F2)
8) Find the r-value	8) Find the r-value

**E1:** Find the product moment correlation co-efficient of these data:

<b>x</b>	2	3	4	5
<b>y</b>	16	18	19	25

The value of  $r$  is \_\_\_\_\_.

That is close to \_\_\_\_\_, so the scatter graph would show \_\_\_\_\_.

### Your Notes

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