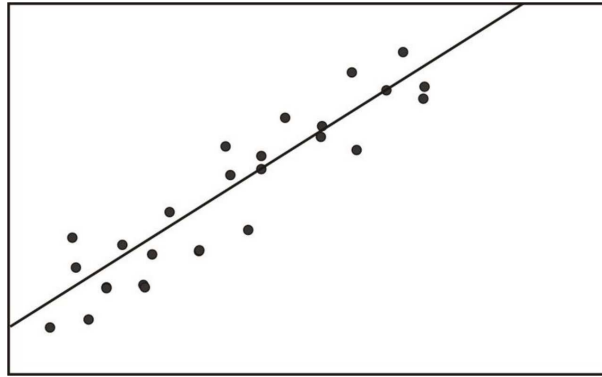


## R Test & TI



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Testing linear correlation coefficient  $r$ :

$H_0 : \rho = 0 \Rightarrow$  Linear Correlation is not significant

$H_1 : \rho \neq 0 \Rightarrow$  Linear Correlation is significant

Where  $\rho$  is the greek letter and it is pronounced rho.

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Using Pearson Correlation Coefficient Critical Value (*PCC-CV*) Method

1. Find PCC-CV Using TI:

`PRGM` > `RVAL` > ENTER (Twice) > `2: 2 TAIL TEST` ,

and `No. PTS = n` simply refers to the number of points in the sample.

2. Conclusion:

- When `|r| > PCC-CV`, then Linear Correlation is significant.
  - When `|r| ≤ PCC-CV`, then Linear Correlation is not significant.
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Predicting  $y$  value for a given  $x$  value:

- Use  $y = a + bx$  when linear correlation is significant.

Plug in the given  $x$  value to find the prediction value  $y$ .

- Use  $\bar{y}$  when linear correlation is not significant.
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