## Correlations

| |
|---|
| Bivariate descriptive statistics: Two variables |
| Univariate descriptive statistics: One variable |
| $\sum(x-\bar{x})^2$ = Minimum |
| Correlation: Measures the direction and degree of linear Relationship between two variables |
| Linear Relationship: When the relationship between two variables can be most accurately represented by a straight line |
| Y = bX+a |
| a = Y intercept (i.e., value of Y when X = 0) |

## Formulas

| | |
|---|---|
| Y = bX + a | Equation of the line |
| Mean $\bar{X}$ | $\sum X/N$ |
| Deviation score | $(X-\bar{X})$ |
| Squared deviation score | $(X-\bar{X})^2$ |
| Sums of squares (SS) | $\sum(X-\bar{X})^2$ |
| Variance ($SD^2$) | SS/N |
| sample size | N |
| Standard deviation (SD) | $\sqrt{SD^2}$ |
| Sum of products (SP) | $\sum(X-\bar{X})(Y-\bar{Y})$ |
| Covariance *(Cov)* | SP/N |

Not published yet.
Last updated 15th November, 2022.
Page 1 of 1.