



STATISTICS

6. CORRELATION

Name: _____

Date: _____

Class: XI Sec: _____

1. Define Correlation?

2. What is the difference between negative and positive correlations?

3. Find the coefficient of correlation between X and Y series from the data:

X	10	12	8	15	20	25	40
Y	15	10	6	25	16	12	8

4. The data on price and quantity relation of a commodity for 10 months are given below. Calculate coefficient of correlation between price and quantity.

Price ($\hat{a}, ₹$)	10	14	12	11	9	7	15	16	18	20
Quantity (kg.)	25	20	30	32	35	40	19	16	12	10

5. For the following data, calculate coefficient of correlation between the variables X and Y using Karl Pearson's method.

X	10	6	9	10	12	13	11	9
Y	9	4	6	9	11	13	8	4

6. A group of ten workers of a factory is ranked according to their efficiency by two different judges as follows:

Name of Worker	A	B	C	D	E	F	G	H	I	J
Rank by Judge A	4	8	6	7	1	3	2	5	10	9
Rank by Judge B	3	9	6	5	1	2	4	7	8	10

Calculate the coefficient rank correlation.



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7. A group of 8 students got the following marks in mathematics and accountancy tests.

<i>Marks in Maths</i>	50	60	65	70	75	40	80	85
<i>Marks in Accountancy</i>	80	71	60	75	90	82	70	50

Compute the coefficient of rank correlation.

8. Calculate the coefficient of rank correlation from the following data:

<i>X</i>	48	33	40	9	16	16	65	24	16	57
<i>Y</i>	13	13	24	6	15	4	20	9	6	19

9. Calculate the coefficient of rank correlation from the following data:

<i>Marks in Mathematics</i>	12	18	32	18	25	24	25	40	38	22
<i>Marks in Statistics</i>	16	15	28	16	24	22	25	36	34	19