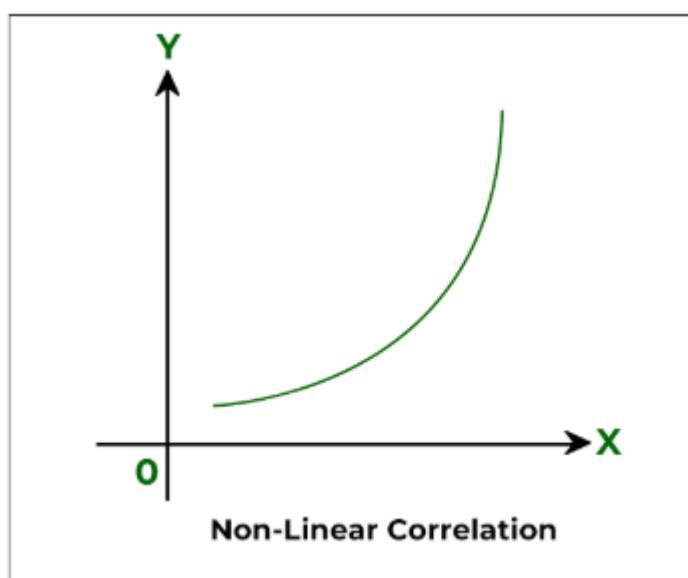03-12-2025

**2. Non-Linear (Curvilinear) Correlation:**

•When there is no constant change in the amount of one variable due to a change in another variable, it is known as a **Non-Linear Correlation.**

•This term is used when two variables do not change in the same ratio. This shows that it does not form a straight-line relationship.

•**For example,** the production of grains would not necessarily increase even if the use of fertilizers is doubled.

| X (Fertilizers) | 10 | 20 | 30 | 40 | 50 |
|---|---|---|---|---|---|
| Y (Production of Grains) | 7 | 12 | 19 | 25 | 35 |



Non-Linear Correlation

In the above schedule, there is no specific relationship between the variables. Even though both change in the same direction i.e. both are increasing, they change in different proportions. The ratio of change of variables X and Y in the above schedule is not the same, thus there is a non-linear relationship between the variables.