Statistics

1. Data types in statistics
2. Categorical and Numerical
3. Levels of data

* Nominal level
* Ordinal level
* Interval level
* Ratio level

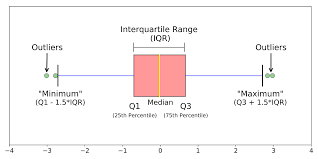
1. Population
2. Sample
3. Population vs Sample
4. Inferential statistics
5. Frequency table: class vs frequency
6. Relative frequency table
7. Bar chart
8. Pie chart
9. Frequency distributed table: CI vs Interval freq
10. Histogram
11. Distribution graph
12. Central tendency
13. Mean- Median-mode
14. Mean vs Median
15. Outliers
16. Skewed data
17. Pos – Neg – normal
18. Bi mode – Uni mode – Multi mode
19. Data dispersion
20. Range : It will not consider middle value
21. Mean deviation: ; Total deviation =0
22. AMD: : graph is dis cont at point zero
23. Variance : value will be raise as well as units also
24. Standard deviation
25. Variance : how a data is varying it self
26. Covariance: how a data is varying w.r.t other variable
27. Pos or neg or neutral
28. Covariance Matrix
29. Pearson Correlation ( r ) -1 to 1 : cov(x,y)/std(x) \* std(y)
30. Percentile
31. Quartile
32. Outliers analysis
33. Box plot

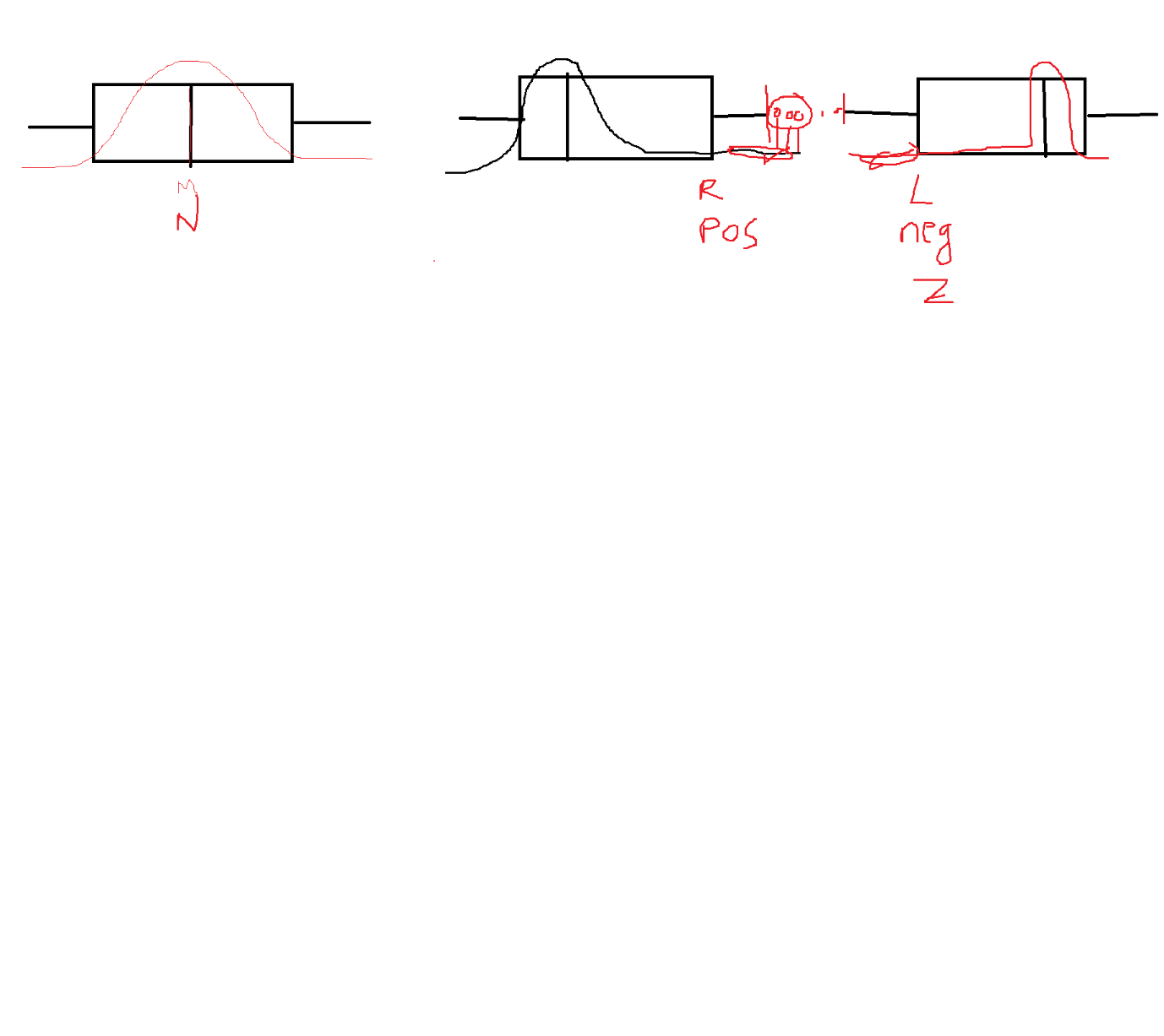
Plots:

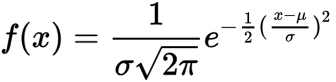
1. Bar plot : Class vs Frequency
2. Pie chart: Relative frequency
3. Histogram : CI vs Frequency
4. Distribution plot : Data flow
5. Box plot : To find the outliers
6. Scatter plot : two variables plot

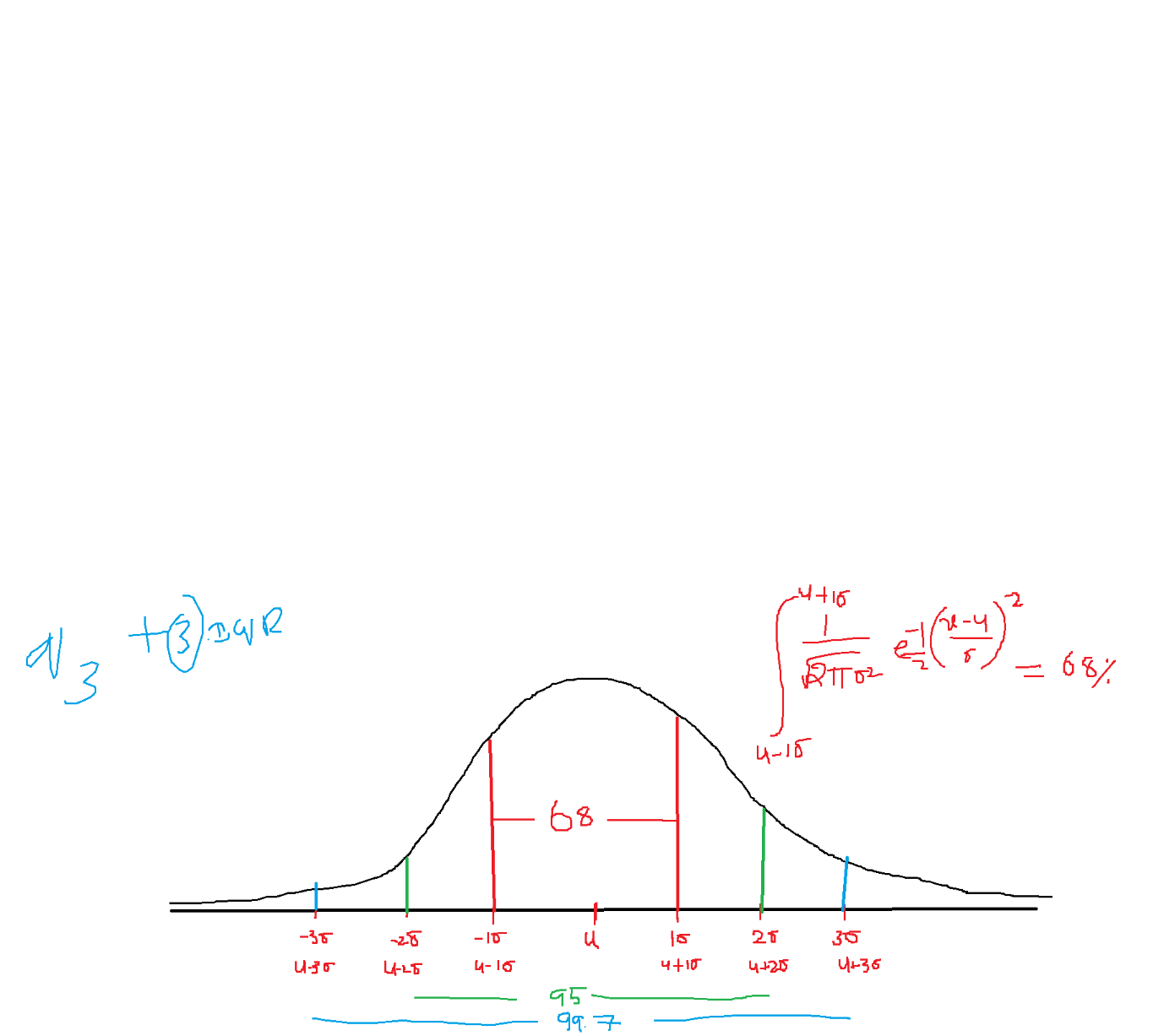
Relation between two variables

How to Deal the Outliers



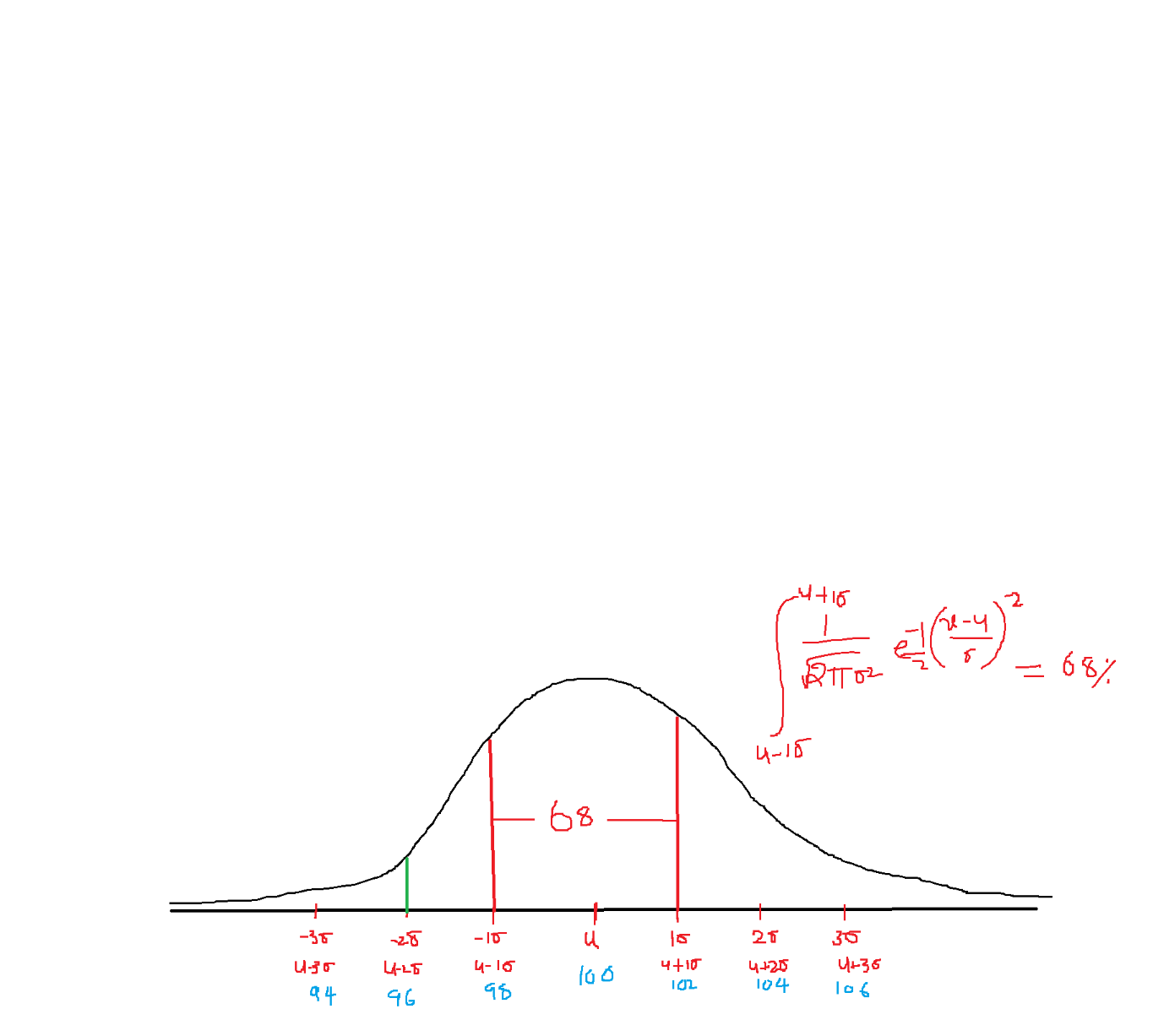


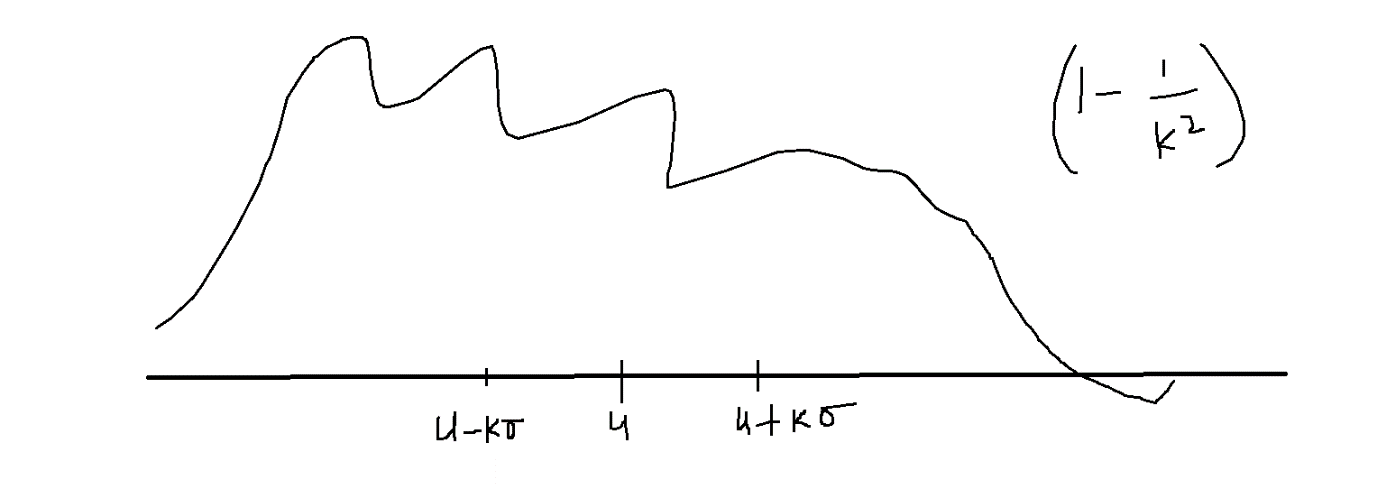




Use case:

Assume that In India The average petrol rate is 100rs, by ever state on of average it will vary by 2 rs





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