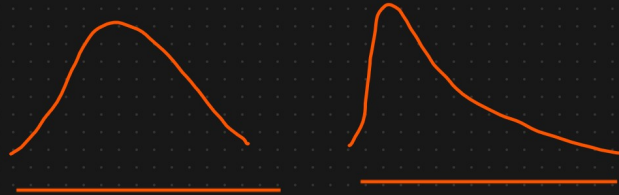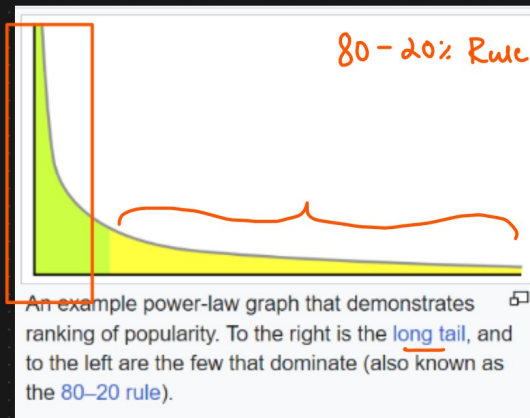# ① Power Law Distribution

In statistics, a power law is a functional relationship between two quantities, where a relative change in one quantity results in a proportional relative change in the other quantity, independent of the initial size of those quantities: one quantity varies as a power of another

80-20% Rule

An example power-law graph that demonstrates ranking of popularity. To the right is the long tail, and to the left are the few that dominate (also known as the 80–20 rule).
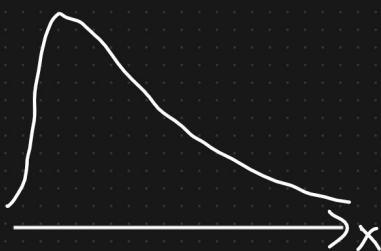
Eg: IPL

① 20% of Team is responsible for winning 80% match

② 80% of wealth are distributed with 20% of the total Population
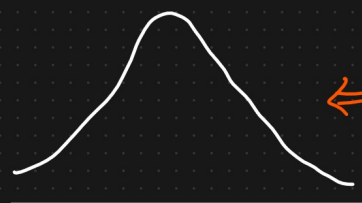
③ 80% of the total Oil is with 20% of the nation
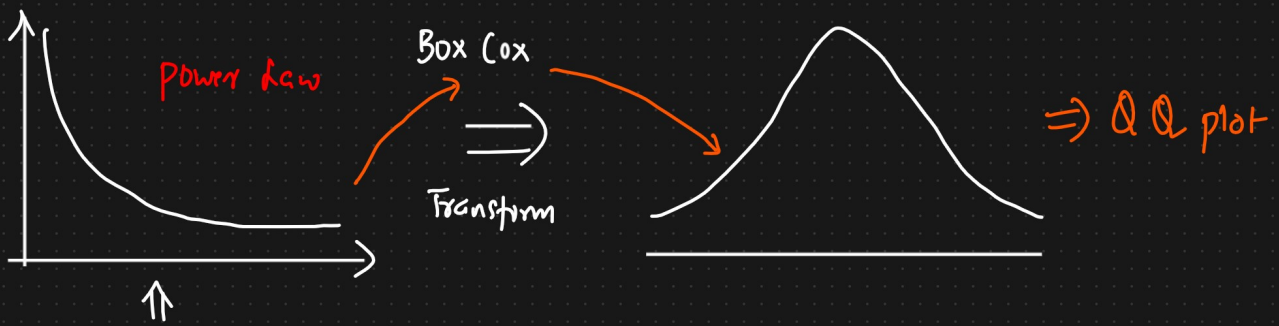
④ Frequencies of words in most languages.

⑤ 20% of the major defects fixes the 80% of upcoming defects in a s/w product

$\ln(x) \implies$

→ x

← Normal Distribution

Power Law

Box Cox

$\Longrightarrow$

Transform

$\Longrightarrow$ Q Q plot

Pareto Distribution [80 - 20%.]