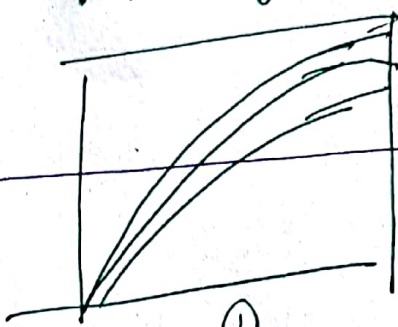


① $CDF(x)$
 models →

Analytical distributions are often good models of more complex empirical distributions

Check by plotting Normal probability plot

- ① exp.
- ② normal
- ③ lognormal
- ④ Pareto



① CCDF
 Complementary Cumulative Distribution Function

① $1 - CDF(x)$ → to check whether the given Distribution is following a model
 ↳ a [analytical model]

② $ICDF(p)$ → giving the p value between 0 and 1 and finding the x values.
 ↳ purpose: for generating Random numbers
 ↳ Based on a given CDF
 ↳ used for simulations.

③ exp distribution
 $CDF(x) = 1 - e^{-\lambda x}$
 ↳ Risk Analysis
 ↳ optimization

$CDF(x) = 1 - e^{-\lambda x}$

Exercise 5.1, 5.4, 5.2, 5.3

5.5 → testing the model for mystery data

5.6
 ↳ export the data to hinc file