2. Rosin - Rammler Distribution

$$R(x) = 1 - F(x) = e^{-(\frac{x}{b})^n}$$

$$\ln(R(x)) = \ln e^{-(\frac{x}{b})^n}$$

$$\log[\ln R(x)^{-1}] = n \log(\frac{x}{b})$$

$$\therefore \log[\ln R(x)^{-1}] = n \log x - n \log b$$

$$(Y = aX + b)$$

$$^{*} R(x)_{x=b} = e^{-1} \approx 0.368$$

Where,

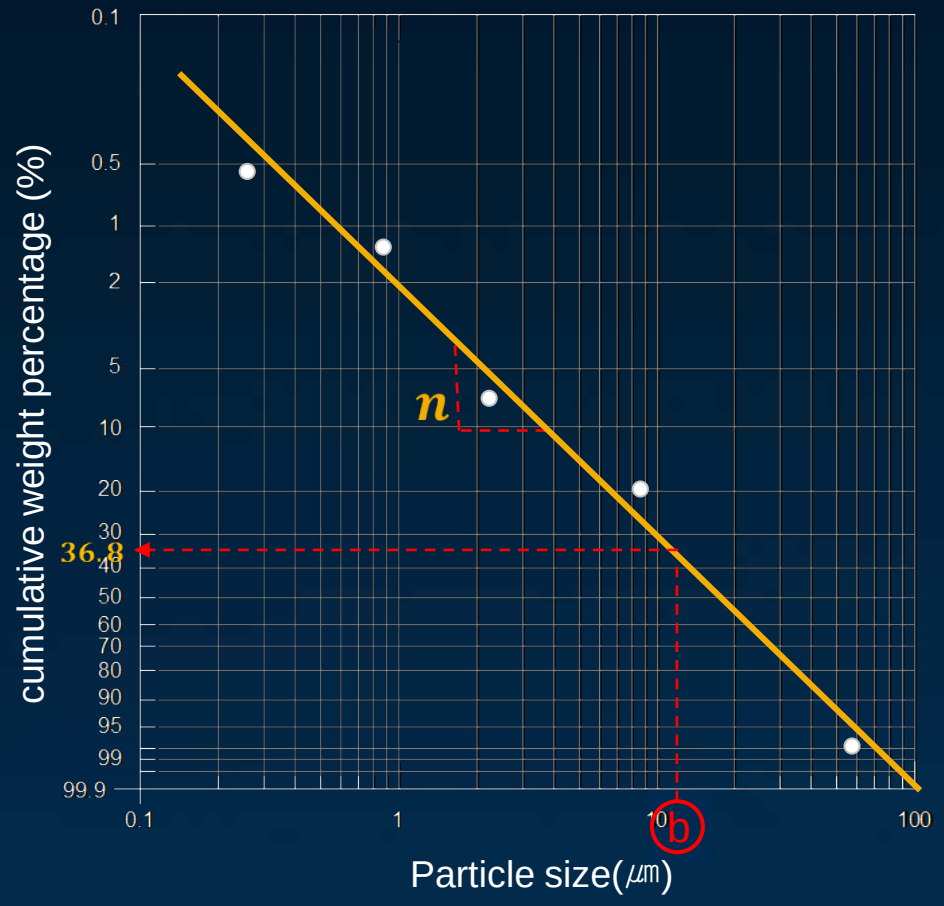
F(x) : the cumulative undersize in percent

R(x) : the cumulative oversize in percent

b, n : constant

x : particle size

"The particle size distribution follows the Rosin-Rammler distribution with $b=b_1$ and $n=n_1$"



3. Gates - Gaudin - Schuhmann Distribution

$$F(x) = \left(\frac{x}{k}\right)^{\alpha}$$

$$\log F(x) = \alpha \log x + Constant$$

$$^{*}\, F(x)_{x=k} = 1$$

Where,

k: size modulus

α: distribution modulus

"The particle size distribution follows the Gates-Gaudin-Schuhmann distribution with $\alpha=\alpha_1$ and $k=k_1$"