

ORIGIN := 1

i := 1 .. 23

$x_1 :=$ $\begin{pmatrix} 0.0430 \\ 0.0661 \\ 0.1080 \\ 0.1623 \\ 0.2224 \\ 0.3402 \\ 0.4322 \\ 0.5064 \\ 0.5931 \\ 0.7131 \\ 0.7875 \\ 0.8227 \\ 0.8875 \\ 0.9163 \\ 0.9281 \\ 0.9534 \\ 0.9681 \\ 0.9749 \\ 0.9782 \\ 0.9872 \\ 0.9911 \\ 0.9942 \\ 0.9987 \end{pmatrix}$

$\gamma_1 :=$ $\begin{pmatrix} 5.9456 \\ 3.9699 \\ 2.5875 \\ 2.3458 \\ 1.8888 \\ 1.5448 \\ 1.3788 \\ 1.3360 \\ 1.3287 \\ 1.3196 \\ 1.3113 \\ 1.2878 \\ 1.2140 \\ 1.1772 \\ 1.1395 \\ 1.0995 \\ 1.0859 \\ 1.0575 \\ 1.0563 \\ 1.0553 \\ 1.0436 \\ 1.0339 \\ 1.0215 \end{pmatrix}$

$\gamma_2 :=$ $\begin{pmatrix} 1.0239 \\ 1.0280 \\ 1.0333 \\ 1.0525 \\ 1.0607 \\ 1.1949 \\ 1.2712 \\ 1.3577 \\ 1.4806 \\ 1.6928 \\ 1.7300 \\ 1.7333 \\ 1.7640 \\ 1.7894 \\ 1.8098 \\ 1.8150 \\ 1.8210 \\ 1.8499 \\ 1.8701 \\ 1.8758 \\ 1.9020 \\ 1.9363 \\ 3.8249 \end{pmatrix}$

$x_{2_i} := 1 - x_{1_i}$

$B_i := \ln \left(\frac{\gamma_{1_i}}{\gamma_{2_i}} \right)$

$F(x_1) :=$ $\begin{pmatrix} 1 \\ x_1 \\ x_1^2 \\ x_1^3 \\ x_1^4 \\ x_1^5 \end{pmatrix}$

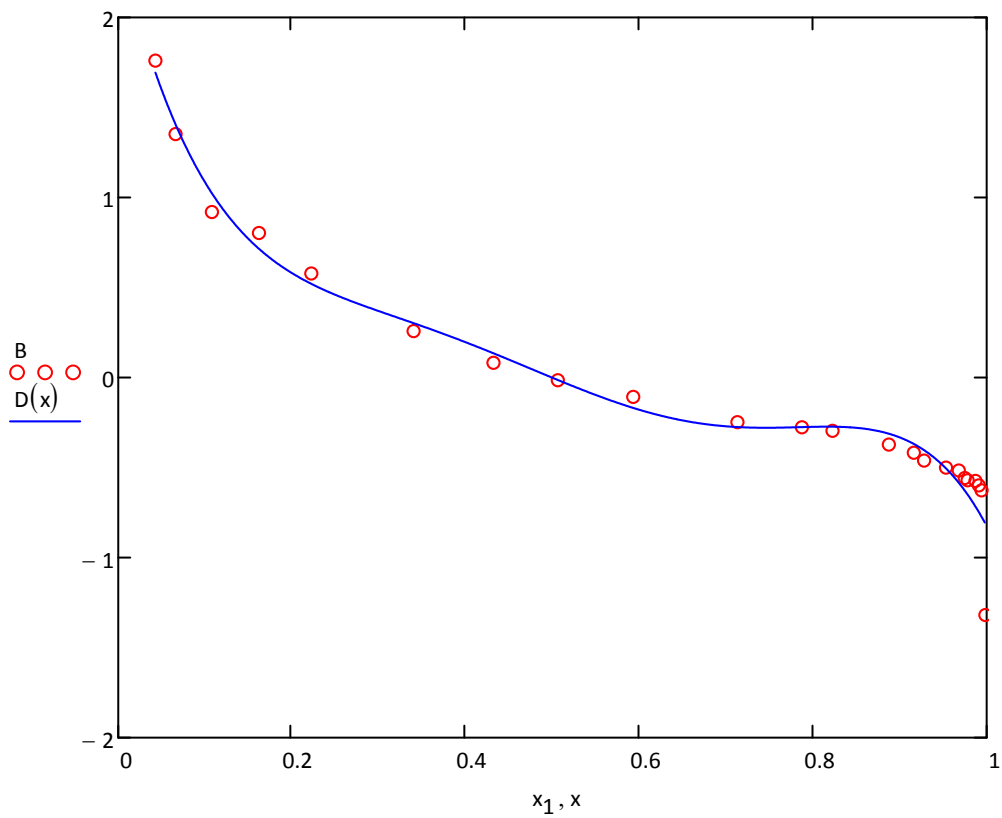
$$\underline{A} := \text{linfit}(x_1, B, F) = \begin{pmatrix} 2.413 \\ -20.043 \\ 84.01 \\ -182.492 \\ 186.021 \\ -70.733 \end{pmatrix}$$

$$f(x_1) := F(x_1) \cdot A$$

$$\text{corr}(\overrightarrow{f(x_1)}, B) = 0.983$$

$$x := 0.043, 0.044 \dots 0.9987$$

$$D(x) := \sum_{n=1}^6 (A_n \cdot x^{n-1})$$



$$x := 0.4$$

$$t := \text{root}(D(x), x) = 0.499$$

$$\int_0^1 D(x) dx = 0.187$$

$$P := \int_0^t D(x) dx = 0.328$$

$$N := \int_t^1 D(x) dx = -0.142$$