\( f(x) = \text{LN}(\mu=0, \sigma^2)(x) \)

\[ x^t \quad \sigma = 1.5 \quad x^m \]

\[ \sigma = 1 \]

\[ \sigma = 0.1 \]

\( \langle x \rangle \)
The graph illustrates the function $g_n(Y_n)$ with different values of $\sigma$ for $n$ ranging from 1 to 1000. The curves represent the following values of $\sigma$:

- $\sigma = 0.1$
- $\sigma = 0.25$
- $\sigma = 2^{-1/2}$
- $\sigma = 1$
- $\sigma = 1.5$
- $\sigma = 2$