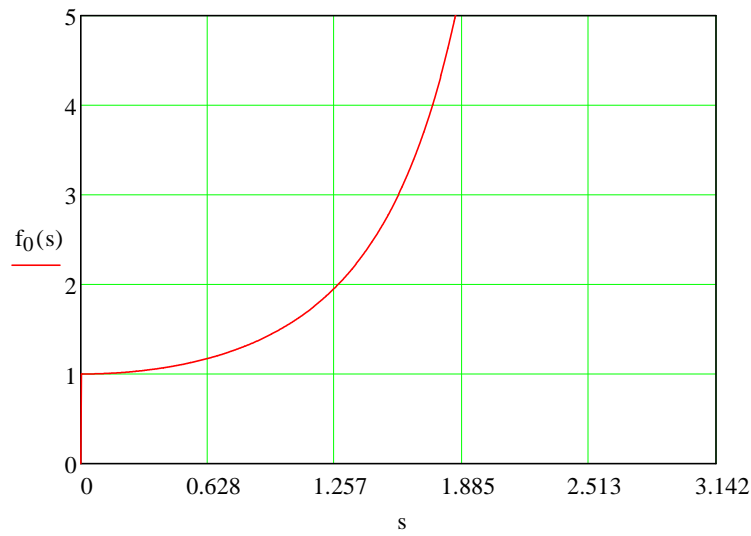


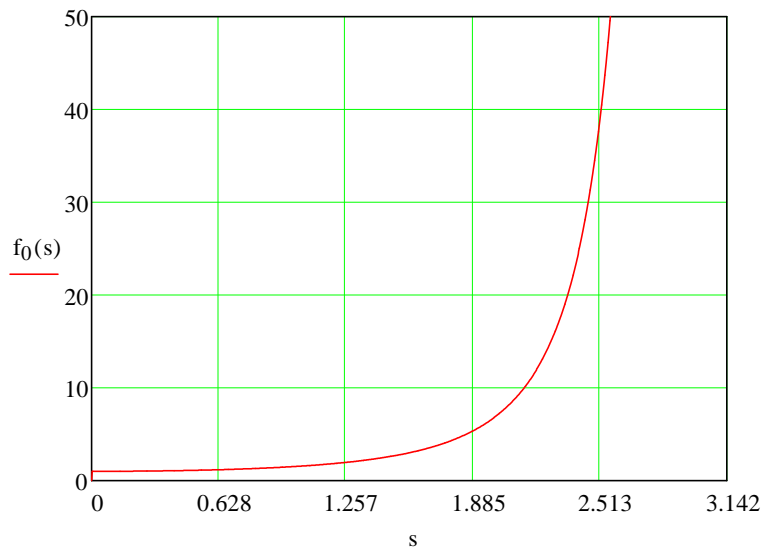
**Formula (9.6.1.5). To Svante Monie, 28/7 2016**

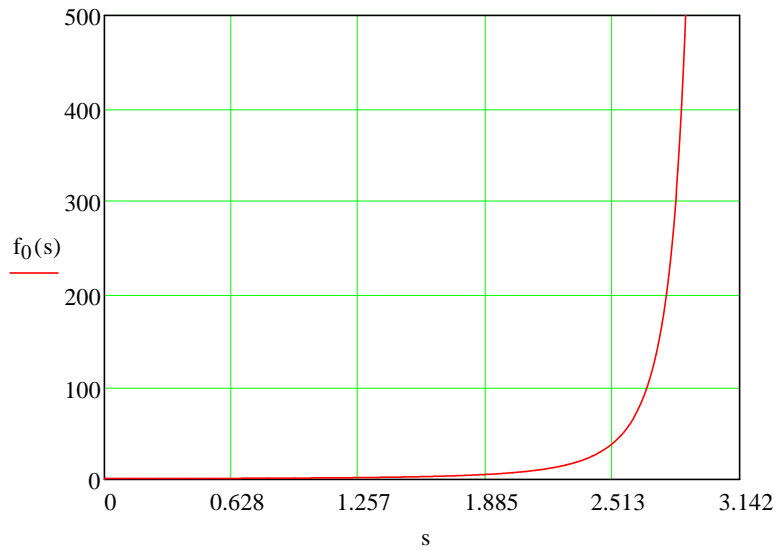
$$f_0(s) := 3 \cdot \frac{\sin(s) - s \cdot \cos(s)}{\sin(s)^3}$$

Note:  $0 < s < \pi$



$\pi = 3.142$

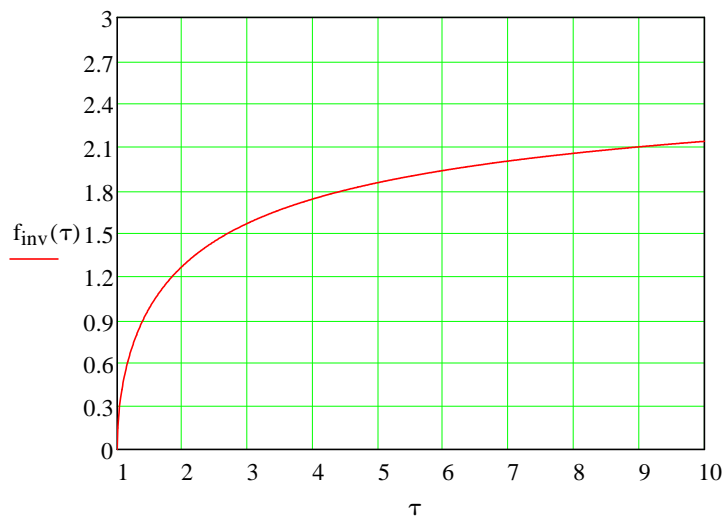


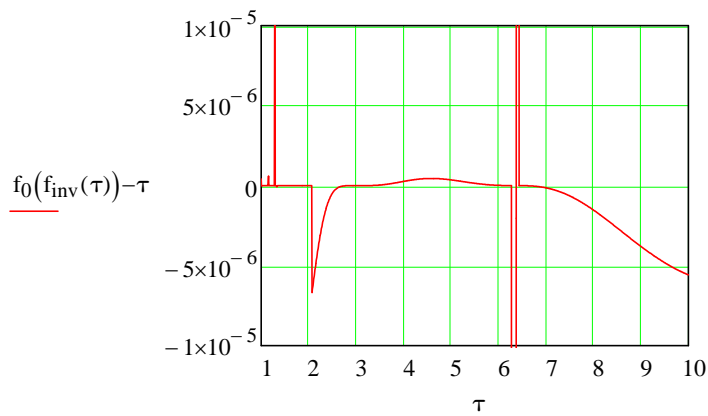
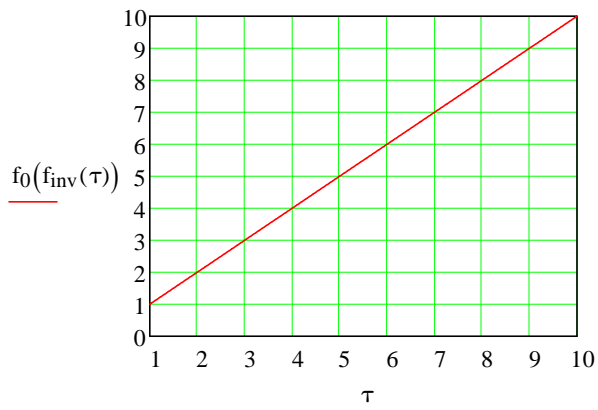
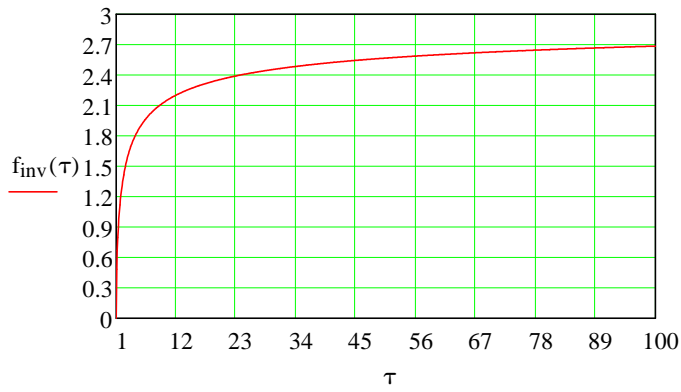


$$f_{\text{inv}}(\tau) := \text{root}(f_0(s) - \tau, s, 0, \pi)$$

$$f_{\text{inv}}(1) = 1.016 \times 10^{-3} \quad f_{\text{inv}}(2) = 1.273 \quad f_{\text{inv}}(10) = 2.139 \quad f_{\text{inv}}(100) = 2.685$$

$$f_{\text{inv}}(1000) = 2.93 \quad f_{\text{inv}}(10^4) = 3.044 \quad f_{\text{inv}}(10^5) = 3.096 \quad f_{\text{inv}}(10^6) = 3.12$$





$$\gamma := 0.457$$

$$u_{\text{out}}(\tau) := \begin{cases} 0 & \text{if } \tau \leq 1 \\ \frac{1}{\pi} \cdot \int_0^{f_{\text{inv}}(\tau)} \operatorname{erfc}\left(\gamma \cdot \frac{f_0(s)}{\sqrt{\tau - f_0(s)}}\right) ds & \text{if } \tau > 1 \end{cases}$$

$$u_{\text{out}}(2) = 0.136$$

$$u_{\text{out}}(10) = 0.401$$

