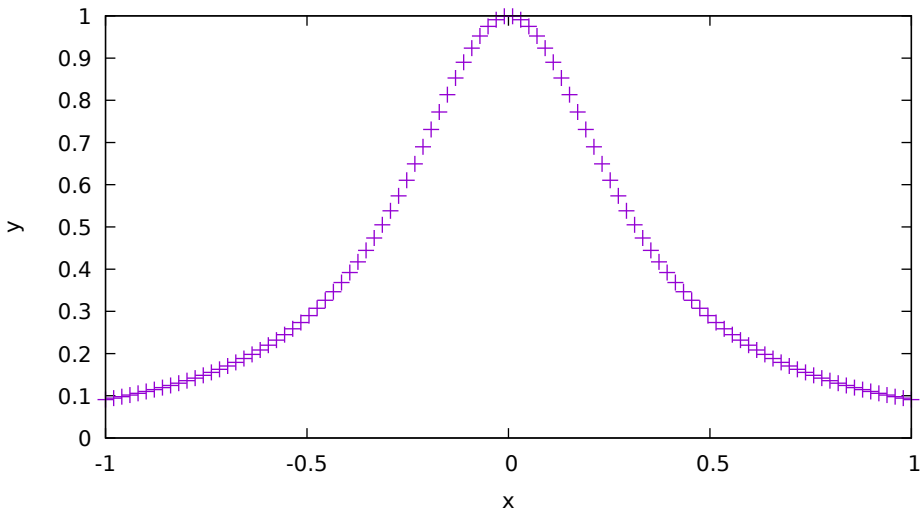
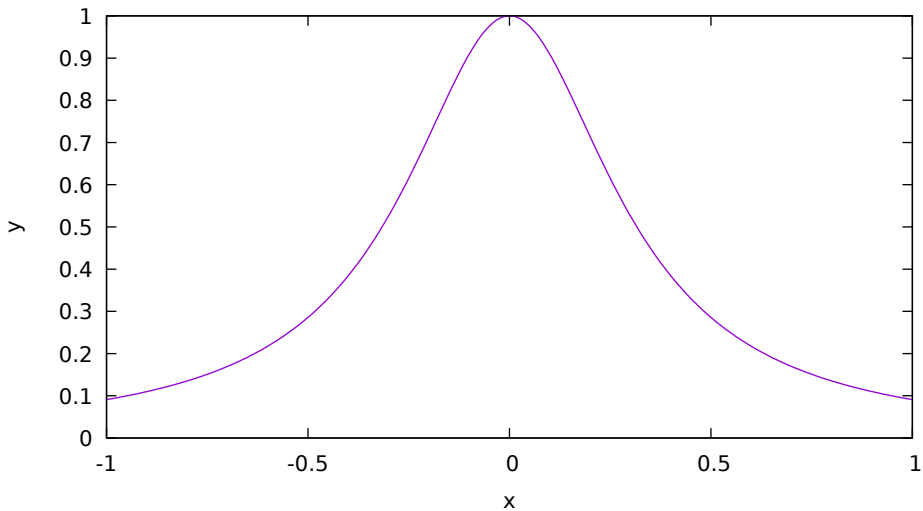


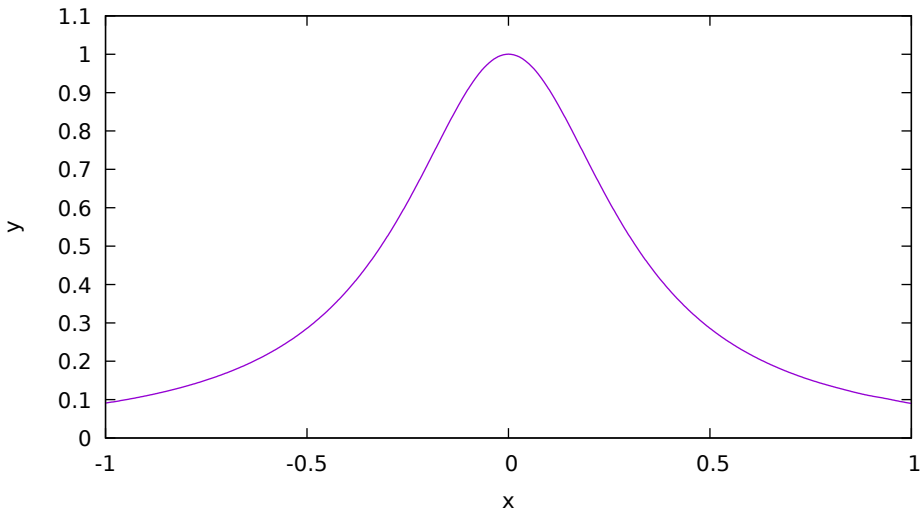
q4 --- Original 100 sample points



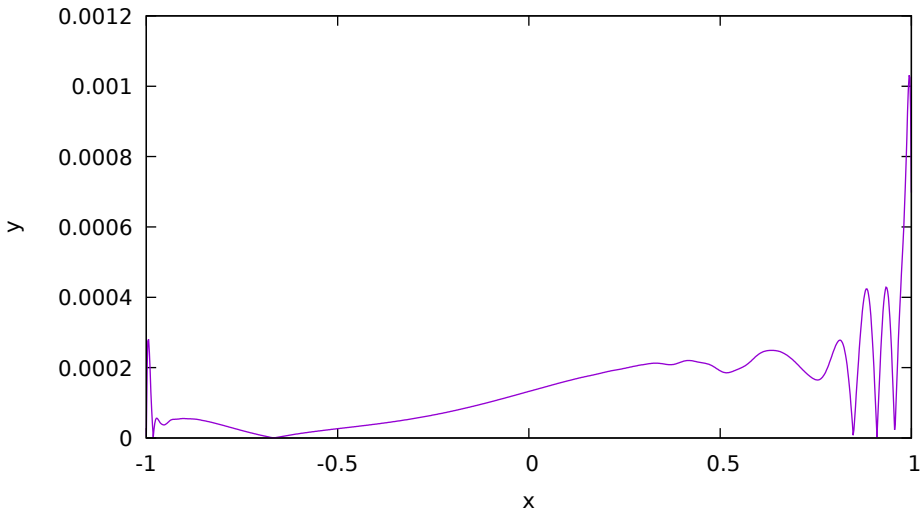
q4 --- Expected curve



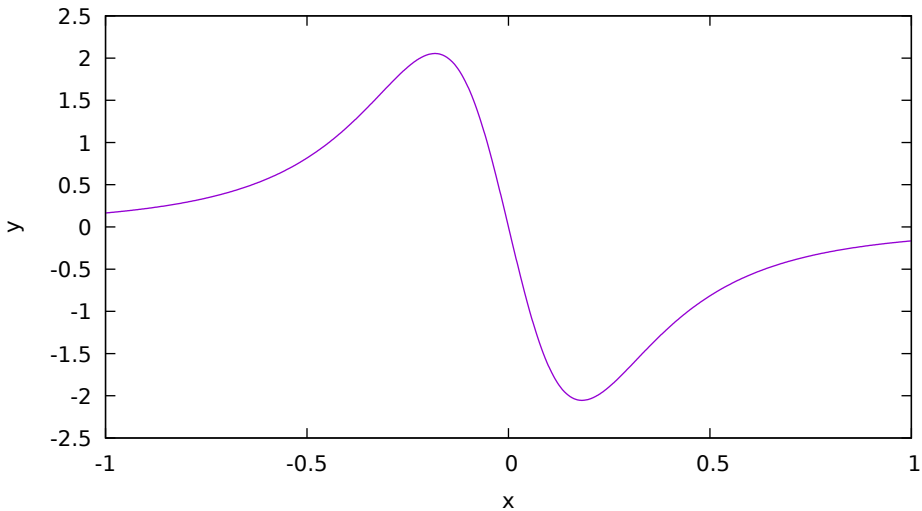
q4 --- Approximation curve



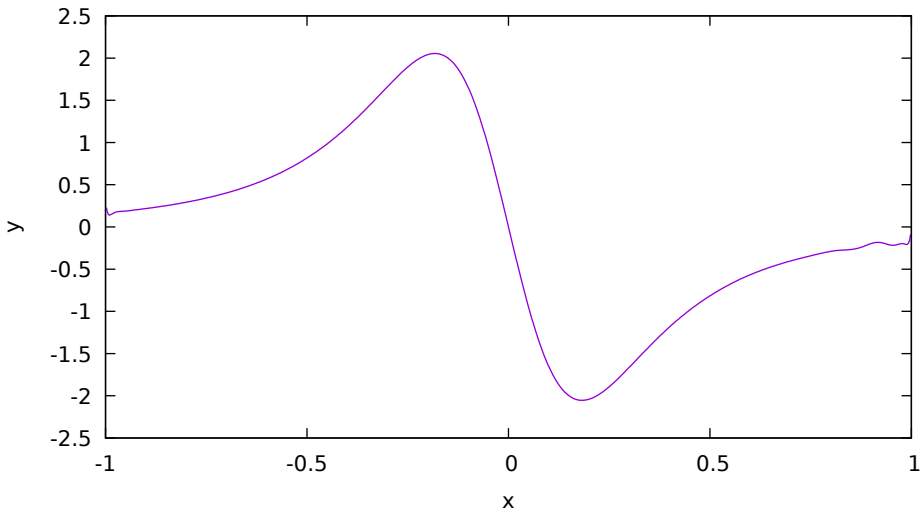
q4 --- Error: $\text{abs}(y_{\text{expect}} - y_{\text{approx}})$



q4 --- Expected derivative curve



q4 --- Approximated derivative curve



q4 --- Error for derivative: $\text{abs}(y_{\text{expect}} - y_{\text{approx}})$

