1. Find the interval of convergence for the series
\[ \sum_{k=2}^{\infty} \frac{2^k(x - 1)^k}{k}. \]

2. (a) Write the first four non-zero terms of the Maclaurin series for \( f(x) = e^{-x^2} \).

(b) Write the first four non-zero terms of the Maclaurin series for \( g(x) = \int_0^x e^{-x^2} \, dx \).