1. Given a function $f$ with
\[ x_0 = -3, \quad x_1 = -2, \quad x_2 = -1, \quad x_3 = 0, \quad x_4 = 1, \quad x_5 = 2, \quad \text{and} \quad x_6 = 3, \]
and
\[ f(x_0) = 0, \quad f(x_1) = -0.2, \quad f(x_2) = -0.2, \quad f(x_3) = 0, \]
\[ f(x_4) = 0.2, \quad f(x_5) = 0.2, \quad \text{and} \quad f(x_6) = 0. \]
compute the derivative of $f$ at $x = 0.5$.

2. Evaluate the integral
\[ \int_{-1}^{1} e^{-x^2} \, dx. \]