1. A rectangular storage container with square base is to have a volume of 8000 \( cm^3 \). Material for the base costs $3/cm^2$ material for the sides costs $2/cm^2$, and material for the top costs $1/cm^2$. Find the dimensions that minimize the cost of the materials for the container.

2. Use Newton’s method to estimate \( \sqrt{80} \) correct to 8 decimal places using the initial approximation \( x_1 = 4 \). Indicate to which function you apply Newton’s method, what is the formula for \( x_{n+1} \) in terms of \( x_n \), and what are the numbers \( x_2, x_3, \ldots \).