1. For the function \( f(x) = x^2 + 3x \) on the interval \([0, 1]\), do the following:

   (a) Write the Riemann Sum for the partition of \([0, 1]\) into the 4 subintervals \([0, \frac{1}{4}],
       \frac{1}{4}, \frac{1}{2}], [\frac{1}{2}, \frac{3}{4}], [\frac{3}{4}, 1]\), when the left hand endpoints are selected for the \(x^*_i\).

   (b) Use the regular partition of \([0, 1]\) into \(n\) equal subintervals and select the right
       hand endpoints for the \(x^*_i\) to write a Riemann Sum for \(f(x)\).

   (c) Compute the value of the Riemann Sum in part (b) for \(n = 5\).
2. Consider the sum
\[ \sum_{i=1}^{n} \left( \sin \left( \frac{i}{n} \right) - 1 \right)^3 \frac{1}{n}. \]

(a) Explain why the sum can be interpreted as a Riemann sum for a function \( f(x) \)
on the interval \([0, 1]\). That is, guess the function \( f(x) \), the partition, and the \( x_i^* \)selection.