Consider the following (very inefficient) randomized algorithm to find the minimum of an array of integers of size $n$.

- Pick a random number $i$ between 1 and $n$.
- Check if the number at index $i$ is the minimum by comparing it with every other numbers in the array.
- If we found the minimum, output the value and exit. Otherwise, restart the algorithm from the beginning.

Answer the following questions:

1. What is the expected number of times the algorithm will restart?
2. What is the expected running time of the algorithm?