

Output ex2



The graph above shows us the time taken to create a list of random numbers and to find the mean of the list generated. The time taken to create a list of random number is slower than the time to find the mean of the list.

As the size of the list increases, the time taken to create the list is longer, hence the graph gradually increases. This is also because the time complexity is $O(n^2)$. The shape of the graph to find the mean is almost constant, hence the time complexity is $O(1)$