ניתוח זמן הריצה של gprof:

עבור קלט גודל עשר:

```
./q5 25 100
gprof q5 gmon.out > analysis1.txt
cat analysis1.txt
Flat profile:

Each sample counts as 0.01 seconds.
 no time accumulated

  %   cumulative   self              self     total
 time   seconds   seconds    calls  Ts/call  Ts/call  name
  0.00      0.00     0.00        1     0.00     0.00  generateRandomNumbers
  0.00      0.00     0.00        1     0.00     0.00  maxSubArraySum1
  0.00      0.00     0.00        1     0.00     0.00  maxSubArraySum2
  0.00      0.00     0.00        1     0.00     0.00  maxSubArraySum3
```

```
granularity: each sample hit covers 4 byte(s) no time propagated

index % time    self  children    called     name
                0.00    0.00       1/1           main [10]
[1]      0.0    0.00    0.00       1          generateRandomNumbers [1]
-----------------------------------------------
                0.00    0.00       1/1           main [10]
[2]      0.0    0.00    0.00       1          maxSubArraySum1 [2]
-----------------------------------------------
                0.00    0.00       1/1           main [10]
[3]      0.0    0.00    0.00       1          maxSubArraySum2 [3]
-----------------------------------------------
                0.00    0.00       1/1           main [10]
[4]      0.0    0.00    0.00       1          maxSubArraySum3 [4]
-----------------------------------------------
```

עבור קלט גודל 100:

```
./q5 25 1000
gprof q5 gmon.out > analysis2.txt
cat analysis2.txt
Flat profile:

Each sample counts as 0.01 seconds.
  %   cumulative   self              self     total
 time   seconds   seconds    calls  ms/call  ms/call  name
100.00      0.33     0.33        1   330.00   330.00  maxSubArraySum3
  0.00      0.33     0.00        1     0.00     0.00  generateRandomNumbers
  0.00      0.33     0.00        1     0.00     0.00  maxSubArraySum1
  0.00      0.33     0.00        1     0.00     0.00  maxSubArraySum2
```

```
granularity: each sample hit covers 4 byte(s) for 3.03% of 0.33 seconds

index % time    self  children    called     name
                0.33    0.00       1/1           main [2]
[1]    100.0    0.33    0.00       1          maxSubArraySum3 [1]
-----------------------------------------------
                                                  <spontaneous>
[2]    100.0    0.00    0.33                  main [2]
                0.33    0.00       1/1           maxSubArraySum3 [1]
                0.00    0.00       1/1           generateRandomNumbers [3]
                0.00    0.00       1/1           maxSubArraySum1 [4]
                0.00    0.00       1/1           maxSubArraySum2 [5]
-----------------------------------------------
                0.00    0.00       1/1           main [2]
[3]      0.0    0.00    0.00       1          generateRandomNumbers [3]
-----------------------------------------------
                0.00    0.00       1/1           main [2]
[4]      0.0    0.00    0.00       1          maxSubArraySum1 [4]
-----------------------------------------------
                0.00    0.00       1/1           main [2]
[5]      0.0    0.00    0.00       1          maxSubArraySum2 [5]
```

עבור גודל 1000:

```
./q5 25 10000
gprof q5 gmon.out > analysis3.txt
cat analysis3.txt
Flat profile:

Each sample counts as 0.01 seconds.
  %   cumulative   self              self     total
 time   seconds   seconds    calls   s/call   s/call  name
 99.97    391.20   391.20        1   391.20   391.20  maxSubArraySum3
  0.03    391.31     0.11        1     0.11     0.11  maxSubArraySum2
  0.00    391.31     0.00        1     0.00     0.00  generateRandomNumbers
  0.00    391.31     0.00        1     0.00     0.00  maxSubArraySum1
```

```
index % time    self  children    called     name
                                                  <spontaneous>
[1]    100.0    0.00  391.31                  main [1]
              391.20    0.00       1/1           maxSubArraySum3 [2]
                0.11    0.00       1/1           maxSubArraySum2 [3]
                0.00    0.00       1/1           generateRandomNumbers [4]
                0.00    0.00       1/1           maxSubArraySum1 [5]
-----------------------------------------------
              391.20    0.00       1/1           main [1]
[2]    100.0  391.20    0.00       1          maxSubArraySum3 [2]
-----------------------------------------------
                0.11    0.00       1/1           main [1]
[3]      0.0    0.11    0.00       1          maxSubArraySum2 [3]
-----------------------------------------------
                0.00    0.00       1/1           main [1]
[4]      0.0    0.00    0.00       1          generateRandomNumbers [4]
-----------------------------------------------
                0.00    0.00       1/1           main [1]
[5]      0.0    0.00    0.00       1          maxSubArraySum1 [5]
-----------------------------------------------
```