Assignment 3 Report

Question 1

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mohamadelchami@Mohamads-MacBook-Pro A3 % gcc -lm -pthread assignment3Q1.c
[mohamadelchami@Mohamads-MacBook-Pro A3 % ./a.out
[Enter the number of points: 100
 Number of point: 100
 Pi = 3.120000
 Time spent: 0.000322
 mohamadelchami@Mohamads-MacBook-Pro A3 % ./a.out
[Enter the number of points: 1000
 Number of point: 1000
 Pi = 3.176000
 Time spent: 0.000290
 mohamadelchami@Mohamads-MacBook-Pro A3 % ./a.out
[Enter the number of points: 10000
 Number of point: 10000
 Pi = 3.137200
 Time spent: 0.002226
 mohamadelchami@Mohamads-MacBook-Pro A3 % ./a.out
[Enter the number of points: 100000
 Number of point: 100000
 Pi = 3.146120
 Time spent: 0.013559
 mohamadelchami@Mohamads-MacBook-Pro A3 % ./a.out
[Enter the number of points: 1000000
 Number of point: 1000000
 Pi = 3.137544
 Time spent: 0.113449
 mohamadelchami@Mohamads-MacBook-Pro A3 % ./a.out
[Enter the number of points: 1000000
 Number of point: 1000000
 Pi = 3.136508
 Time spent: 0.120280
 mohamadelchami@Mohamads-MacBook-Pro A3 % 
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elchamim@alpha:~/Desktop/A3$ gcc -fopenmp -lm assignment3Q2.c
elchamim@alpha:~/Desktop/A3$ ./a.out
Enter the number of points: 10
Number of point: 10
Pi = 3.425000
Time spent: 0.000155
elchamim@alpha:~/Desktop/A3$ ./a.out
Enter the number of points: 100
Number of point: 100
Pi = 3.152500
Time spent: 0.000177
elchamim@alpha:~/Desktop/A3$ ./a.out
Enter the number of points: 1000
Number of point: 1000
Pi = 3.144000
Time spent: 0.000948
elchamim@alpha:~/Desktop/A3$ ./a.out
Enter the number of points: 10000
Number of point: 10000
Pi = 3.140050
Time spent: 0.005401
elchamim@alpha:~/Desktop/A3$ ./a.out
Enter the number of points: 100000
Number of point: 100000
Pi = 3.141153
Time spent: 0.056293
elchamim@alpha:~/Desktop/A3$ ./a.out
Enter the number of points: 1000000
Number of point: 1000000
Pi = 3.142223
Time spent: 0.542319
elchamim@alpha:~/Desktop/A3$
```

Question 2

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File  Edit  View  Search  Terminal  Help
elchamim@alpha:~/Desktop/A3$ gcc -fopenmp -lm assignment3Q4.c
elchamim@alpha:~/Desktop/A3$ ./a.out
Enter the number of slaves: 2
Number of point: 1000000
Number of slaves: 2
Pi = 3.141221
Time spent: 0.070206
elchamim@alpha:~/Desktop/A3$ ./a.out
Enter the number of slaves: 20
Number of point: 1000000
Number of slaves: 20
Pi = 3.141386
Time spent: 0.007028
elchamim@alpha:~/Desktop/A3$ ./a.out
Enter the number of slaves: 40
Number of point: 1000000
Number of slaves: 40
Pi = 3.142107
Time spent: 0.003488
elchamim@alpha:~/Desktop/A3$ ./a.out
Enter the number of slaves: 80
Number of point: 1000000
Number of slaves: 80
Pi = 3.141697
Time spent: 0.001707
elchamim@alpha:~/Desktop/A3$ ./a.out
Enter the number of slaves: 100
Number of point: 1000000
Number of slaves: 100
Pi = 3.141876
Time spent: 0.001333
elchamim@alpha:~/Desktop/A3$
```

```
elchamim@alpha:~/Desktop/A3$ gcc -fopenmp -lm assignment3Q3.c
elchamim@alpha:~/Desktop/A3$ ./a.out
Enter the number of slavess: 2
Number of point: 1000000
Number of slaves: 2
Pi = 3.141720
Time spent: 0.175814
elchamim@alpha:~/Desktop/A3$ ./a.out
Enter the number of slavess: 20
Number of point: 1000000
Number of slaves: 20
Pi = 3.140324
Time spent: 0.018621
elchamim@alpha:~/Desktop/A3$ ./a.out
Enter the number of slavess: 40
Number of point: 1000000
Number of slaves: 40
Pi = 3.140036
Time spent: 0.008055
elchamim@alpha:~/Desktop/A3$ ./a.out
Enter the number of slavess: 80
Number of point: 1000000
Number of slaves: 80
Pi = 3.139916
Time spent: 0.004134
elchamim@alpha:~/Desktop/A3$ ./a.out
Enter the number of slavess: 100
Number of point: 1000000
Number of slaves: 100
Pi = 3.144952
Time spent: 0.003702
elchamim@alpha:~/Desktop/A3$
```