

Lab 2 Report

1. 2.

```
sunruibo@hakus-MacBook-Pro-2 lab2 % g++-14 -fopenmp -o hello hello.c
```

```
sunruibo@hakus-MacBook-Pro-2 lab2 % ./hello
```

Thread 0

Number of threads: 4

Hello World

Thread 1

Number of threads: 4

Hello World

Thread 3

Number of threads: 4

Hello World

Thread 2

Number of threads: 4

Hello World

3.1.

```
sunruibo@hakus-MacBook-Pro-2 lab2 % g++-14 -fopenmp -o multi multi.c
```

```
sunruibo@hakus-MacBook-Pro-2 lab2 % ./multi
```

Number of threads: 4

Time: 0.159000 ms

1925 4675 7425 10175 12925 15675 18425 21175 23925 26675 %

```
sunruibo@hakus-MacBook-Pro-2 lab2 % g++-14 -fopenmp -o multi multi.c
```

```
sunruibo@hakus-MacBook-Pro-2 lab2 % ./multi
```

Number of threads: 10

Time: 0.062000 ms

1925 4675 7425 10175 12925 15675 18425 21175 23925 26675 %

3.2.

```
sunruibo@hakus-MacBook-Pro-2 lab2 % g++-14 -fopenmp -o multi multi.c
```

```
sunruibo@hakus-MacBook-Pro-2 lab2 % ./multi
```

Number of threads: 4

Static scheduling time: 0.151000 ms

Dynamic scheduling time: 1.303000 ms

Guided scheduling time: 0.070000 ms

Result: 1925 4675 7425 10175 12925 15675 18425 21175 23925 26675

Task 3.1: More threads reduced execution time.

Task 3.2: Static and guided were faster than dynamic due to lower overhead.

