

# Generate Random Numbers

```
int a;  
a = rand();
```

```
#include <cstdlib>  
#include <time.h>
```

```
srand(time(0));  
int a;  
a = rand();
```

# Time

```
#include <time.h>    or    #include <ctime>
```

```
time(0); // time(NULL) → Reference 1970
```

[https://www.w3schools.com/cpp/cpp\\_date.asp](https://www.w3schools.com/cpp/cpp_date.asp)

# Chrono

```
#include <chrono>
```

```
chrono::time_point<chrono::high_resolution_clock> start, end;
```

```
start = chrono::high_resolution_clock::now();
```

```
end = chrono::high_resolution_clock::now();
```

```
chrono::duration<double> elapsed_seconds = end - start;
```

```
elapsed_seconds.count()
```

<https://www.geeksforgeeks.org/how-to-get-time-in-milliseconds-in-cpp/><https://www.geeksforgeeks.org/how-to-get-time-in-milliseconds-in-cpp/>