Lab 4

On Cloud9, create a folder named "lab4" in your cse201 workspace. Store all your work for lab 4 in that folder. Like all the other labs, you should have 2 files per excercise: the source file and the compiled program.

For these exercises, you will create programs that depend on random number generation. Here is an example program that generates 3 random numbers:

```
#include <iostream>
#include <string>
#include <cstdlib>
#include <ctime>
using namespace std;

int main()
{
    srand(time(0));
    cout <<
        rand() << endl <<
        rand() << endl <<
        rand() << endl;
}
```

Note that you should include two additional header files: cstdlib and ctime.

For these excercises, you should always have the statement `srand(time(0));` at the start of your main function. This statement initializes the RNG with the current time. This makes the RNG generate numbers with more randomness than it would if the RNG was initialized with a constant value.

Exercise 1

Create a program that simulates a coin flip by randomly displaying "heads" or "tails". Name your source file flip.cpp.

Exercise 2

Create a program that generates two random integers, each with a value between 1 and 6 inclusive. Name your source file dice.cpp.

Exercise 3

Create a program that plays rock, paper, scissors with you. Name your source file rps.cpp.

Exercise 4

Create a program that generates a random fortune (like messages you would find in a fortune cookie). Your program should have at least 5 possible fortunes. Name your source file fortune.cpp