

## Random Function Assignment

### Background

Built into C++ is the function `rand` that is used to get a random integer. It is used as follows:

```
#include<iostream>
#include<time.h>
using namespace std;

void main()
{
    srand(time(NULL));

    int r = rand();
    cout << r << endl;
}
```

To get a random number in the range 5-10 you would do the following:

```
#include<iostream>
#include<time.h>
using namespace std;

void main()
{
    srand(time(NULL));

    //gets a random value in the range 5-10
    int r = (rand() % 6) + 5;
    cout << r << endl;
}
```

### Assignment

A weakness of the built in `rand` function is that you have to use the modulus operator and some addition to get a random value in a desired range. The goal of this assignment is to write your own random function that does not have this weakness.

You are to write a function named `random` that returns a random number. The function should take two integer arguments that specify the range of random values. For example: `random(30,50)` should return a random number in the range 30-50 inclusive. You should reuse the `rand` function within your random function. Use logic like the call to `rand` in the second example above within your random function.

In your main function you must test your random function using at least 5 examples of calls to `random` using different ranges. Simply display the values that are returned from your function call to the console to show that it works.