

```
// RollADice_With_Procedures.cpp
// RollADice (no procedures or functions)
//
// Problem
// Roll two dice and print the values with the highest first.
// And output what dice roll won.
// Created by Ian Grant on 26/02/2018.
```

```
#include <iostream>           // std::iostream
#include <time.h>
#include <ctime>
#include <stdlib.h>
#include <sstream>
```

```
using namespace std;
```

```
// initialise variables
int roll1;
int roll2;
stringstream sstm;
```

```
int rollADice () {
    int roll = rand()% 6 +1;
    return roll;
}

string orderDice (int roll1, int roll2) {
    string result = "";

    if (roll1 > roll2) {
        sstm << "Dice Result (highest first): " << roll1 << " then " <<
            roll2 << "\nDice roll 1 wins\n";
        result = sstm.str();
    } else if (roll1 < roll2) {
        sstm << "Dice Result (highest first): " << roll2 << " then " <<
            roll1 << "\nDice roll 2 wins\n";
        result = sstm.str();
    } else {
        sstm << "The dice rolls were equal: " << roll1 << " then " <<
            roll2 << ".\n" ;
        result = sstm.str();
    }
    return result;
}
```

```
string outputThrow () {  
    string result = "";  
  
    roll1  = rollADice();  
    roll2  = rollADice();  
    result = orderDice(roll1, roll2);  
    return result;  
}  
  
int main() {  
    srand(time(0)); // this only needs to be called once and once only!  
    string result = "";  
    result = outputThrow();  
    cout << result << endl;  
  
    return 0;  
}
```