

```
// Ch 6_DiceGame_RandumNumber.cpp : Defines the entry point
// for the console application.
```

```
#include "stdafx.h"
#include <iostream>
#include <cstdlib>
#include <ctime>
using namespace std;
```

```
unsigned int rollDice(); //function prototype
```

```
int main() {
```

```
    // scoped enumerations with constants that represent the game status
    enum class Status{CONTINUE, WON, LOST};
```

```
    //randomize random number generator using current time(seed)
    srand(static_cast <unsigned int>(time(0)));
```

```
    unsigned int myPoint{ 0 }; // point if no win or loss on first roll
    Status gameStatus;
    unsigned int sumOfDice{ rollDice() }; // first roll of the dice
```

```
    // determain game status and point (if needed) based on the first roll
    switch (sumOfDice) {
```

```
        case 7: // win with 7 on first roll
        case 11: // win with 11 on first roll
            gameStatus = Status::WON;
            break;
        case 2: // crap out
        case 3:
        case 12:
            gameStatus = Status::LOST;
            break;
        default: // did not win or loose, so remember point
            gameStatus = Status::CONTINUE; // game is not over
            myPoint = sumOfDice; // remember the point
            cout << "Point is: " << myPoint << endl;
            break; // optional at end of switch
    }
```

```
    // while game is not complete
```

```
    while (Status::CONTINUE == gameStatus) { // not WON or LOST
        sumOfDice = rollDice(); // roll dice again
```

```
        if (sumOfDice == myPoint) { // win by making point
            gameStatus = Status::WON;
        }
        else {
            if (sumOfDice == 7) { // lose by rolling 7 before point
                gameStatus = Status::LOST;
            }
        }
    }
```

```
    if (Status::WON == gameStatus) {
        cout << "You Win! " << endl;
    }
    else {
        cout << "Sorry, You Loose" << endl;
    }
```

```
    system("pause");
    return 0;
```

```
}
```

```
// rolldice, calculate sum and display results
```

```
unsigned int rollDice() {
    int die1{ 1 + rand() % 6 };
    int die2{ 1 + rand() % 6 };
    int sum{ die1 + die2 };
```

```
    // display results of this roll
    cout << "Player rolled " << die1 << " + " << die2
        << " = " << sum << endl;
    return sum;
```

```
}
```