

Freshman_Camp

Knowledge and Information Discovery Lab
National Cheng Kung University

Course Website

www.tinyurl.com/ncku-freshman



For those who...

- Coloretto (變色龍)
 - Rules: <http://goo.gl/YuslhT>
 - Play online: http://www.marquand.net/staticpages/index.php?page=coloretto_play
 - Video: https://www.youtube.com/watch?v=_huhDSJDnQE
- Requirements:
 - Write a program which lets users play Coloretto
 - Use only basic rules
 - Number of players: 3-5

For-loop

```
for( initial ; condition ; step){  
    // Do sth here.  
}
```

For-loop

```
for( int i = 1 ; i <= 4 ; i = i + 1){  
  
    cout << i <<endl;  
}
```

```
wchHsintekiMacBook-Pro:day2 wchsin$ ./a.out  
1  
2  
3  
4
```

Practice 1

- Complete the for-loop in program.
- Output 0~10.

```
0
1
2
3
4
5
6
7
8
9
```

Practice 2

- We can also put for-loop in another for-loop.
- The second practice is to output and Times Table.

Practice 2

```
#include <iostream>
using namespace std;

int main(void){
    for(int i = ; i <= ; i ++){
        //請完成上述 for-loop

        for(){
            cout << i << "*" << j << "=" << i*j << endl;
        }
        //請完成上述的 for loop

        cout << endl;
    }

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


Practice 2

```
c:\Users\KID\Documents\Visual Studio 2008\Projects\99\Debug\99.exe
1*1=1  4*1=4  7*1=7
1*2=2  4*2=8  7*2=14
1*3=3  4*3=12  7*3=21
1*4=4  4*4=16  7*4=28
1*5=5  4*5=20  7*5=35
1*6=6  4*6=24  7*6=42
1*7=7  4*7=28  7*7=49
1*8=8  4*8=32  7*8=56
1*9=9  4*9=36  7*9=63

2*1=2  5*1=5  8*1=8
2*2=4  5*2=10  8*2=16
2*3=6  5*3=15  8*3=24
2*4=8  5*4=20  8*4=32
2*5=10  5*5=25  8*5=40
2*6=12  5*6=30  8*6=48
2*7=14  5*7=35  8*7=56
2*8=16  5*8=40  8*8=64
2*9=18  5*9=45  8*9=72

3*1=3  6*1=6  9*1=9
3*2=6  6*2=12  9*2=18
3*3=9  6*3=18  9*3=27
3*4=12  6*4=24  9*4=36
3*5=15  6*5=30  9*5=45
3*6=18  6*6=36  9*6=54
3*7=21  6*7=42  9*7=63
3*8=24  6*8=48  9*8=72
3*9=27  6*9=54  9*9=81
```

Practice 3

- Modify the `little_star.cpp` we used yesterday to for-loop version.
- Allow users to input the level count.

Practice 3

```
#include <iostream>
using namespace std;

int main(void){

    int height ;

    cout << "請輸入高度:";
    // 讓使用者輸入至height

    int star_level_count = 1 ; // 目前這層的星星該有幾個
    for( int i = ; i >= ; i ){
        // 完成上述 for loop

        for( ){
            cout << " "; // 目前這層應該輸出幾個空白
        }

        for( ; star <= star_level_count ;){
            cout << "*"; // 該輸出幾顆星星
        }

        star_count += ; // 下一層要加幾個星星
        cout << endl;
    }

    system("PAUSE");
}
```

Practice 3

請輸入高度:10

```
      *
     ***
    *****
   *********
  ***********
 *****
*****
*****
*****
*****
```

Thanks for Listing!

–Berlin Hsin