

Physics 234: Quiz 2

Friday, January 28, 2011

Student's Name: _____

1. The corrections are 0→1, 0→1, and 36→37.

```
$ more grid.cpp
#include <iostream>
using std::cout;
using std::endl;

#include <iomanip>
using std::setw;

int main()
{
    int n = 1;
    do
    {
        cout << setw(6) << n;
        if ((++n)%6 == 1) cout << endl;
    } while (n < 37);

    return 0;
}
$ make grid
g++      grid.cpp  -o grid
$ ./grid
    1     2     3     4     5     6
    7     8     9    10    11    12
   13    14    15    16    17    18
   19    20    21    22    23    24
   25    26    27    28    29    30
   31    32    33    34    35    36
```

2. The `i` in the assertion refers to the `int i` declared in the first line of `main`.

```
$ more grid2.cpp
#include <cassert>

#include <iostream>
using std::cout;
using std::endl;

#include <iomanip>
using std::setw;

int i = -1;

int main()
{
    int i = 3;

    for (int i = 1; i <= 6; ++i)
    {
        for (int j = 0; j < 6; ++j)
            cout << setw(6) << 6*j+i;
        cout << endl;
    }

    assert(i == 3);

    return 0;
}
$ make grid2
g++      grid2.cpp  -o grid2
$ ./grid2
    1     7    13    19    25    31
    2     8    14    20    26    32
    3     9    15    21    27    33
    4    10    16    22    28    34
    5    11    17    23    29    35
    6    12    18    24    30    36
```

3. A set of braces is needed that opens after the first `for` statement and closes after the `endl` is issued.