

**ENG236 Computer Programming**  
Quiz 3 (28 September 2009)

Instruction: open book, closed computer

1. (20 marks) Write a C++ program using nested `for` loops to print out the following pattern on the screen. Each time, only a single character is printed out.

```
abcd
bcde
cdef
```

Solution:

```
#include <iostream>
using namespace std;
int main()
{   int rows=3, columns=4;
    char theChar='a';

    for (int i=0; i<rows; i++, theChar++)
    {
        char firstChar=theChar;
        for (int j=0; j<columns; j++, firstChar++)
            cout << firstChar;
        cout << "\n";
    }
    return 0;
}
```