**1.**

endlendl

grendel

**2.**

The program asks for an input of a number. It then uses the number to determine how many “#” are printed out and in what order. The for loop within the out for loop, j = i so it prints out that many #’s in that row and then breaks out of the inner for loop to the outer for loop to see if it should continue to the next row. This will end up printing a right triangle made of #’s if the number of sides inputted is greater than 1. An example would be if the number of side inputs is 3, the first for loop would set i=0 and see if 0< 3 (it is), then it would add 1 to i and go into the second for loop. The second for loop would set i = j so j is now 1, see if 1 >= 0 (it is), subtract 1 from j. The first run-through would print one 1 #. Then it would go back out to the outer for loop and see that 1 < 3 still so i++ would make i 2. Then it would go back to the second for loop and j is now equal to 2. With 2, the inner loop would run twice and 2 #’s would be printed out. This same process would run with the third side run but since 3 is no longer less than 3. The for loop would stop.

Example (output for 3):

#

##

###

**3.**

#include <iostream>

using namespace std;

int main () {

int side;

cout << "Enter a number : ";

cin >> side;

for (int i = 0; i < side; i++) {

int j;

j = i;

while (j >= 0) {

cout << "#";

j--;

}

cout << "\n";

}

}

**4.**

#include <iostream>

using namespace std;

int main () {

switch (codeSection) {

case 281:

cout << “bigamy”;

break;

case 321:

case 322:

cout << “selling illegal lottery tickets”;

break;

case 383

cout << “selling rancid butter”;

break;

case 598

cout << “injuring a bird in a public cemetery”;

break;

default:

cout<< “some other crime”;

break;

}