Queens College, CUNY, Department of Computer Science
Object-Oriented Programming in C++
CSCI 211/611
Summer 2018
Instructor: Dr. Sateesh Mane

due date n/a

Homework: Break and continue

- **Experience with other classes has demonstrated that in many cases the source of difficulty is not the mathematics or the programming.**
- **The source of difficulty is the English (understanding the text).**
- **If you do not understand the words in the lectures or homework, THEN ASK.**
- **If you do not understand the concepts in the lectures or homework, THEN ASK.**
- **Send me an email, explain what you do not understand.**
- **Do not just keep quiet and then produce nonsense in exams.**

- **Consult your lab instructor for assistance.**
- **You may also contact me directly, but I cannot promise a prompt response.**
- Please submit your inquiry via email, as a file attachment, to `Sateesh.Mane@qc.cuny.edu`.
- Please submit one zip archive with all your files in it.
  1. The zip archive should have either of the names (CS211 or CS611):

     ```
     StudentId_first_last_CS211_hw_break_continue.zip
     StudentId_first_last_CS611_hw_break_continue.zip
     ```

  2. The archive should contain one "text file" named "hw_bc.[txt/docx/pdf]" (if necessary) and cpp files named "Q1.cpp" and "Q2.cpp" etc.
  3. Note that a text file is not always required for every homework assignment.
  4. Note that not all questions may require a cpp file.

Q1 Break and continue

- We shall employ a pseudorandom number generator as follows.

```
int iseed = (your student id)
default_random_engine generator;
generator.seed( iseed );
uniform_int_distribution<int> i_prng(1, 20);
```

- The header file `<random>` is required.
- **Write a loop to execute 100 times.**
- **Continue if a is divisible by 4.**
- **Break if a equals 17.**

```
for (int i = 0; i < 100; ++i) {
  int a = i_prng(generator);
  // continue if a is divisible by 4
  // break if a equals 17
  cout << i << "   " << a << endl;
}
```

- **Write a loop `while(true)`.**
- **Continue if a is divisible by 7.**
- **Break if a equals 12.**
- **Print a count of how many numbers are printed in the loop.**

```
int count = 0;
while (true) {
  int a = i_prng(generator);
  // continue if a is divisible by 7
  // break if a equals 12
  cout << a << endl;
  ++count;
}
cout << "count = " << count << endl;
```

- **See next page.**

```
#include <iostream>
#include <iomanip>
#include <cmath>
#include <random>

int main()
{
  int iseed = (your student id)
  default_random_engine generator;
  generator.seed( iseed );
  uniform_int_distribution<int> i_prng(1, 20);

  for (int i = 0; i < 100; ++i) {
    int a = i_prng(generator);
    // continue if a is divisible by 4
    // break if a equals 17
    cout << i << "   " << a << endl;
  }

  cout << endl;
  int count = 0;
  while (true) {
    int a = i_prng(generator);
    // continue if a is divisible by 7
    // break if a equals 12
    cout << a << endl;
    ++count;
  }
  cout << "count = " << count << endl;
  return 0;
}
```