Assignment 1 – Simple C++

Description:

It's time to shake the dust off of those programming skills of yours. The goal of assignment 1 is to write a simple C++ program, **simple.cpp**, that generates and displays an array of 100 random numbers between 1 and 100. Easy, right? Well there are a few catches. First, the array should be declared dynamically using the **`new`** operator and freed using the **`delete`** operator. There is a great resource located at http://www.cplusplus.com/doc/tutorial/dynamic/ if these operators are new to you. Second, you will need to create two separate functions for filling and displaying your dynamically allocated array (see below for details). Lastly, the output from your program needs to be formatted in neat rows of ten with each number filling a width of three regardless of its value (see below for details). There is a very helpful function detailed http://www.cplusplus.com/reference/iomanip/setw/?kw=setw that will help you format your output as described below.

Specifications:

Your program should contain the following functions:

`void fill(int*, int)`

- Takes a pointer to an integer array and the length of that array as arguments. Fills the array with length random numbers. Return nothing.

`void printa(int*,int)`

- Takes a pointer to an integer array and the length of that array as arguments. Prints length numbers from the array in columns 10 integers wide with each integer occupying a width of three regardless of its value. Return nothing.

Due:

August 28th, 2016 11:59 PM

Example:

```
$ g++ simple.cpp -o simple
$ ./simple
  0  80  66  77  57  98  63  11  48   9
 61  28  12  42  36  10  79  94  12  86
 58   5  96   6  63  12  65  53  49  70
  8  29  23  68  14  45  98   1  98  68
```

```
 97  67  40  50  63  41  97  93  84   7
 38   0  90  84  41   9  10  43  45  20
 47  40  15  77  18  61  95  30   4  30
 76  95   4  98  52  18  57  38   3  31
 64  54  59  81  73  46  64  38  96  53
  5  69  69   2  30  36   5  65   2   8
$
```