

**CPSC 2430-02 Fall 2017 Programming Assignment #6**  
**Thursday, November 30, 2017 at Midnight**

*P6 exercises your understanding of uniform interfaces, STL and iterators*

Using a **STL container and iterator(s)** of your choice, write a C++ program that:

- 1) generates 1000 integers using a random number generator
- 2) stores the integers generated above in your container
- 3) displays the numbers (multiple items per output line)
- 4) removes all numbers that are multiples of 5
- 5) displays the remaining numbers (multiple items per output line)
- 6) removes all prime numbers that sit between two numbers of mixed parity
  - 2, 17, 43 results in 17 being removed
  - 1, 17, 42 results in 17 being removed
  - 2, 17, 42 results in 17 NOT being removed
  - 1, 17, 43 results in 17 NOT being removed
- 7) displays the remaining numbers (multiple items per output line)
- 8) repeats steps #6 and #7 until there is no change

Call your file "p6.cpp". Submit your project by typing the following command from the prompt in the directory where the files are located:

**/home/fac/sreeder/submit/cpsc2430/p6\_runme**