Unordered Associative Containers Continued Solutions

C++ Unordered Containers

- Write down all the associative container types which are supported by C++11
  - unordered_set
  - unordered_multiset
  - unordered_map
  - unordered_multimap

Operations

- In general, is there a performance difference between operations on ordered and unordered associative containers?
  - The unordered container operations are generally faster
- Are there any circumstances in which operations on unordered associative containers can be slower than expected?
  - Operations on an unordered associative container can be slow if the hash map needs to be resized
  - Hash collisions (more than one key with the same hash value) can cause operations to be slower

Iterators

- Are iterator ranges useful when working with unordered containers?
  - There are two cases in which iterator ranges are useful with unordered containers
  - Iterating over the entire container
  - Iterating over elements with the same key (multiset/multimap)

Sorting an unsorted container

- Write a simple program which
  - Populates an unordered associative container
  - Prints out all the elements of the ordered container
  - Copies all its elements into the equivalent ordered container
  - Prints out all the elements of the ordered container