

Containers Reference Sheet

Container	Multiples allowed?	Stored Sorted?	Can change size	Functions	Other info
Set	No	Yes	Yes	Insert, find, erase, size, begin, end, rbegin, rend	
multiset	Yes	Yes	Yes	Insert, find, erase, size, begin, end, rbegin, rend	
Unordered_set	No	No	Yes	Insert, find, erase, size, begin, end, rbegin, rend	
vector	Yes	No	Yes	Push_back, size, capacity, begin, end, rbegin, rend From Algorithms: sort, random_shuffle	Can use [], so you can loop over vectors without using auto
map	All the firsts must be different, but there can be seconds that are the same.	Stored sorted on firsts (from low to high)	Yes	Size, begin, end, rbegin, rend	Each element of a map is a pair. But we treat the first of each pair like the index, and the second like the value. So if I have <code>map<double, int> m;</code> and there is a pair (3.14, 90) in m, <code>m[3.14]</code> is 90. If an index hasn't been used yet, as soon as you access it it's initialized to 0 (or "", etc) When looping over a map though, you can't use the [] notation, you must use the first and second member variables.