

Conventions



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How do you remember all that?



Reduce Mental Effort

Parameters are consistent

**Integer parameters are rare,
well named**

**Prefixes and suffixes are
consistent**

Good documentation exists



Iterator Parameters

Two iterators

Iterator and a number

Three iterators

Four iterators



Exceptions



`rotate(first, newfirst,
last)`



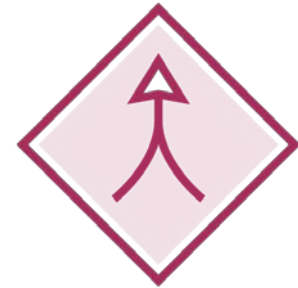
`nth_element(first, nth,
last)`



`rotate_copy(first,
newfirst, last,
destfirst)`



`partial_sort(first,
middle, last)`



`inplace_merge
(first, middle, last)`

Integer Parameters

Size only for
functions with `_n`

Value for `<int>`

Starting value for
`<int>`



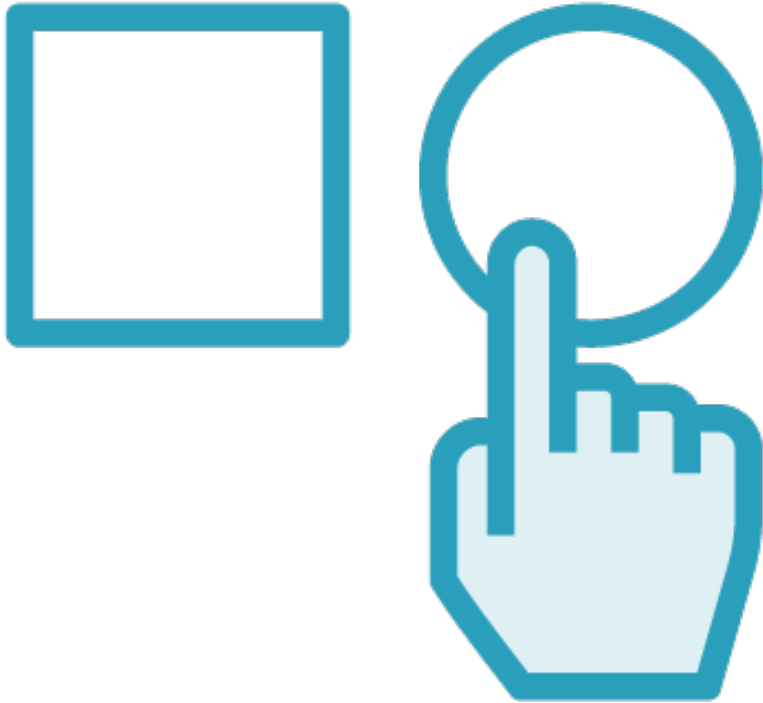
Predicate Last

Overloads with
and without
predicate have
same leading
parameters

Overloads replace
“value” with
“predicate”
parameter

Both `replace_if`
and
`replace_copy_if`
have
value/predicate
3rd, new value 4th





Ends with _if

- Add a predicate or, if original takes value, replace with predicate

Ends with _n

- Replace first, last with first, size

Starts with is_

- Returns bool
- Unless is_X_until: returns iterator

No function name change for “from the end” or “from last to first”

- Use a different iterator

Starts with stable_

- Elements keep their relative order if the function has no reason to swap them





You still have to memorize some of it, right?

- `#include <algorithm>`
- Try typing a name
 - Sort, Find, Count, Copy
- Autocomplete may help
- From there, it's just consistent parameters

No luck?

CppReference.com

- No ads
- Sample code
- Very complete



Summary



There are almost 100 functions in `<algorithm>`

But nobody memorizes them all

The names and parameters are consistent

Use cppreference.com if you need to

