

Lower Bound

```
template <class ForwardIterator, class T, class Compare>
ForwardIterator lower_bound(ForwardIterator first, ForwardIterator last,
                           const T& value, Compare comp)
{
    auto n = distance(first, last);

    while (n != 0) {
        auto h = n / 2;
        auto m = next(first, h);

        if (comp(*m, value)) {
            first = next(m);
            n -= h + 1;
        } else { n = h; }
    }

    return first;
}
```