Review for exam.

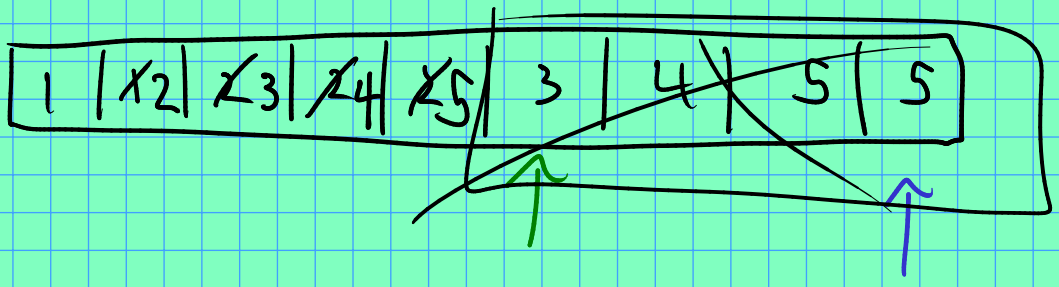
Exercise: make a sorted vector unique (remove duplicates).

Eg.: if V = [1,1,2,2,2,3,4,5,5], want to modify V so that

V = [1,2,3,4,5].

Idea: keep track of 2 locations in V

One stores the location before which we have made all items unique. The other will store the next "candidate" unique item.



say x = last unique item.


```
if (x != V[↑]) {// found sth new!
    x = V[↑];
    V[↑] = V[↑];
    ↑++;
}
↑++;
```

Exercise: write a function that takes a string and returns whether or not all vowels are present.

```
return (has_a && has_e && ... && has_u);
```

```
bool a,e,i,o,u;
a=e=i=o=u=false;
//look through string...
for(...) {
    if(s[i]=='a') a=true;
    if(s[i]=='e') e=true;
        :
}
```

Alternative solution: allocate a bool for everything!

```
bool T[256];
for(int i=0; i<256; i++) T[i]=false;
for(size_t i=0; i<s.length(); i++)
    T[s[i]]=true;
          ↑
       {0,...,255}
return (T['a'] && T['e'] && ... && T['u']);
```