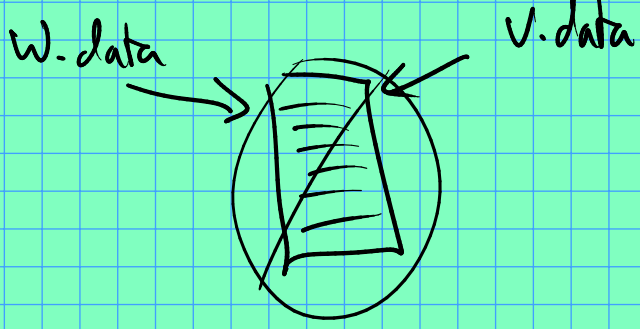
Why copy constructor??

```
vector::vector(const vector& V)
{   size = V.size;
    capacity = V.capacity;
    data = V.data;
}
```

```
void f(vector V)
{
    :
}   <-- V goes out of scope, & destructor is called.
```

```
int main()
{
    vector W;
    :
    f(W);
    // X-X W is dead.
    W[9]; // crash?
```



Similar problem for assignment operator:

```
void f(vector& V)
{   vector T;
    :
    T = V;
}  // T goes out of scope & deletes V's array.
```

V=W;

6 - 2 - 1 = 3

```
void towers(int n, int s, int e)
{  if(n==1) cout << s << " " << e;
   towers(n-1, s, 6-s-e);
   towers(1, s, e); //or just cout...
   towers(n-1, 6-s-e, e);
}
```