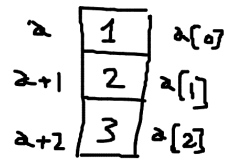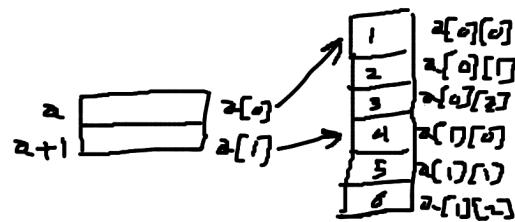# 1D Array:

int a[3]={1,2,3}

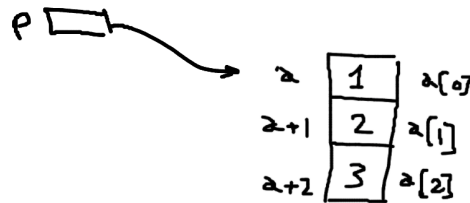

2D Array:

int a[2][3]={{1,2,3},{4,5,6}}

Pointer to Array:

int a[3]={1,2,3}
int* p=a;   //p=&(a[o])

String:

- There is no string type in c (just an array of characters that ends with "\0").

char c[10]="welcome";
//or
// char c[10]={'w','e','l','c','o','m','e','\0'};

- You can read string from using (scanf):
char a[10];
scanf("%s", a);
// or you can read single characters
// scanf("%c",a[0]);
// scanf("%c",a[1]);
// ….
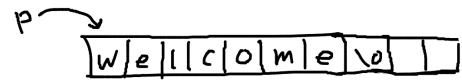
String and Pointers:

- We can use pointers with string to point to specific location in the array of characters as follows:

```
char c[10]="welcome";
char* p =c;
printf("%s", p);            // this will print "welcome"
printf("%c", *p);           // this will print 'w'
```


- You can copy String using pointer as follows::

```
char s1[10]="welcome"
char s2[10];
char *p, *q;
p=s1;                       //create pointer (p) to deal with first string
q=s2;                       //create pointer (q) to deal with second string
while((*q++ = *p++));       //assign *p to *q,
                            //increase p, then increase q
                            //then verify the value returned by =  (stop when it is 0)
```