Q1] int arr[4];
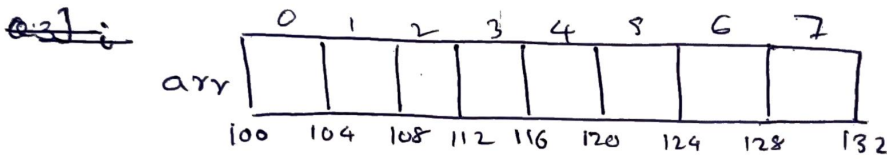
arr is an one dimensional array, which contains 4 elements in it, each element is of type integer.

```
      0     1     2     3
arr ┌─────┬─────┬─────┬─────┐
    └─────┴─────┴─────┴─────┘
100   104   108   112   116
```
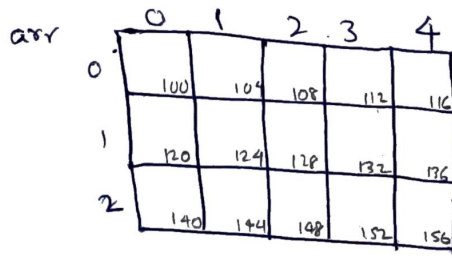
Q2] float arr[8]

arr is an one dimensional array, which contains 8 elements in it, each element is of type float.

```
       0    1    2    3   4    5    6    7
arr ┌────┬────┬────┬────┬────┬────┬────┬────┐
    └────┴────┴────┴────┴────┴────┴────┴────┘
   100  104  108  112 116  120  124  128  132
```
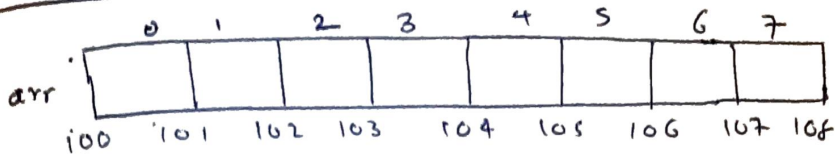
Q3] int arr[3][5]

arr is a two-dimensional array, that contains 3 one dimensional arrays., where each one dimensional array contains 5 elements in it, each element of type integer , Eg.

```
arr        0    1    2   3   4
      ┌──────┬────┬────┬────┬────┐
   0  │ 100  │104 │108 │112 │116 │
      ├──────┼────┼────┼────┼────┤
   1  │ 120  │124 │128 │132 │136 │
      ├──────┼────┼────┼────┼────┤
   2  │ 140  │144 │148 │152 │156 │
      └──────┴────┴────┴────┴────┘
```
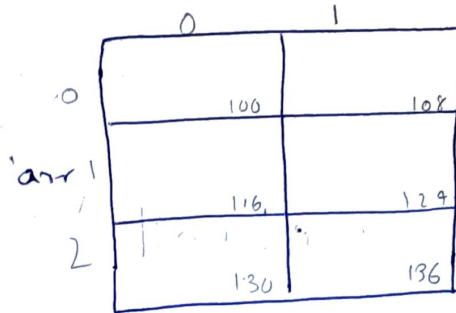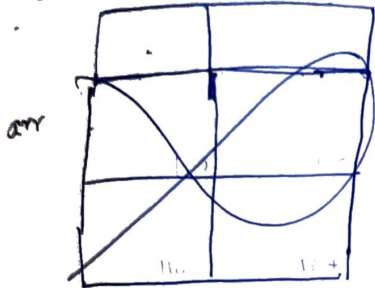
Q4] char arr[2][4]

arr is a two dimensional array, which contains 2 one dimensional arrays., each one dimensional

array contains 4 elements, each element of type character.

0	1	2	3	4	5	6	7

arr

100 101 102 103 104 105 106 107 108

Q5] double arr [3][2]

arr is a 2-Dimensional array, which has **three** one-dimensional arrays, each one dimensional array contains 2 elements in it, each element of type **double**.

arr

arr

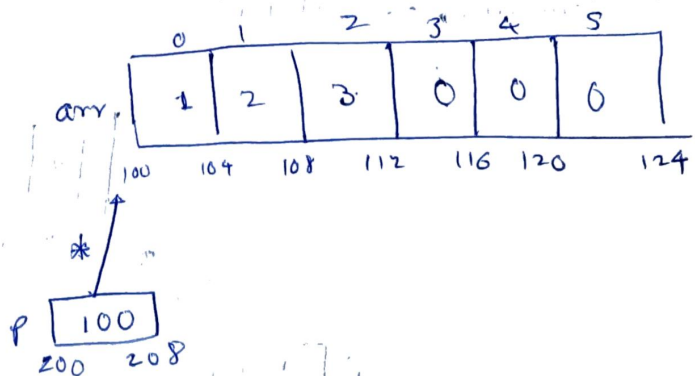|	0	1
0	100	108
1	116	124
2	130	136

Q6] int arr[6] = { 1, 2, 3 }

int *p = arr;

] arr is a one dimensional array, which contains 8 elements in it, each element is of type integer.

] p is a pointer which points to an array of 6 integers, currently it holds address of arr.
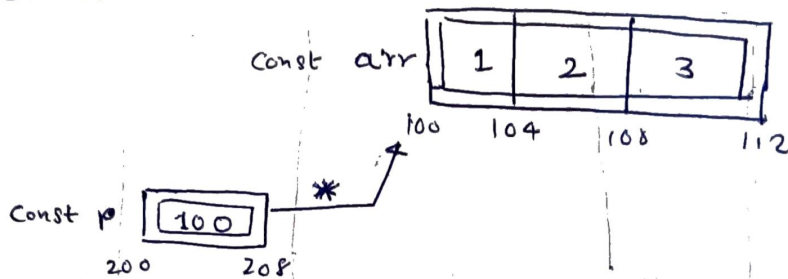
	0	1	2	3	4	5
arr	1	2	3	0	0	0

100   104   108   112   116   120   124

p | 100

200   208

Q8] int const arr[3] = {1, 2, 3};
int const * const p = arr;

1] arr is a one dimensional array, which contains
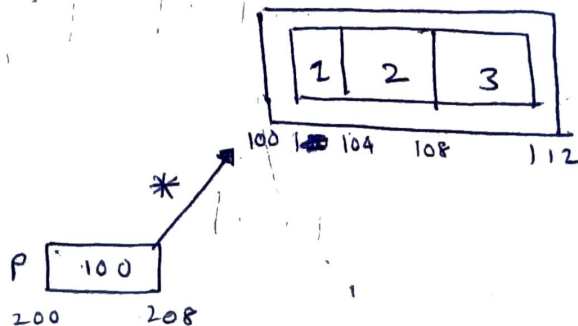3 elements, each element is of type integer
& const qualifier.

2] p is a constant pointer which points to a
constant array of 3 elements, current it holds
address of arr

Const arr | 1 | 2 | 3 |
          100   104   108   112

Const p | 100 |
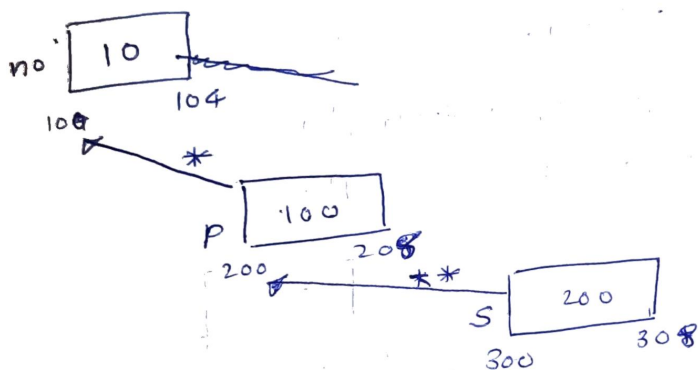   200   208

Q7] int const arr[3] = {1, 2, 3}
int * p = arr;

1] arr is a one dimensional array which contains
three elements, each element of type integer &
qualifier constant.

2] p is a pointer which points to an array of
3 elements, currently it holds address of arr

| 1 | 2 | 3 |
100 104 108   112

P | 100 |
  200   208

Q9] int no = 10;
    int * p = &no;
    int * *sp = &p.

:] no is a variable of type integer, which has assigned value 10 to it.

:] p is a pointer which points to an integer, currently it holds address of no.

:] s is a pointer to pointer which points to a pointer, currently it ~~points to ad~~ holds address of p.

no [10]
      104
100

    *
P [100]
   200   208
        **
    S [200]
   300   308

Q10] char c = 'A';

c is a variable of ~~da~~ type char, which has assigned 'A' value to it.

char * d = &c;

d is a pointer which points to a character, currently it holds address of c.

c [A]
200   201
  *   *
     [200]
      308
  300