1.

```c
#include<stdio.h>
int main(){
    int rows,i,j;
    printf("Enter no of rows\n");
    scanf("%d",&rows);
    int count = 1;
    for(i=0;i<rows;i++){
        if(i == 0){
            printf("%d\n" , count);
            count++;
        }
        else{
            for(j=0;j<=2*i;j++){
                if(j%2 == 0){
                    printf("%d ", count);
                }
                else{
                    printf("* ");
                }
            }
            count++;
            printf("\n");
        }
    }

    return 0;
}
```

2.

```c
#include<stdio.h>
int main(){
    int rows,i,j;
    printf("Enter no of rows\n");
    scanf("%d",&rows);
    for(i=0;i<rows;i++){
        for(j=0;j<=i;j++){
            if(i==j || (i%2 == 0 && j%2 == 0))
                printf("1 ");
            else
                printf("0 ");
        }
        printf("\n");
    }

    return 0;
}
```

3.

Pointer

1. Pointer is a variable which stores the address of other variable

2. *p = arr or p=&arr[0]

3. every element of arr can be accessed by using p++

Array

1. Array is a group of elements shares common name. Contiguous memory location is allocated for elements of the array by the compiler

2. the base address is the location of the first element (index 0) of the array

3. can't access by arr ++ . it is wrong notation