Assignment Of Day 2

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Question 1

Write a program to print the following pattern

1

2\*2

3\*3\*3

4\*4\*4\*4

Question 2

Write a program to print the following pattern

1

01

101

0101

10101

Question 3

Write the similarity and difference between an array name and a pointer variable.

**Answers :**

**Question (1)**

//program for question 1

#include <stdio.h>

int main() {

int i,j,n=4,k=0;

for(i=1;i<=n;i++)

{

for(j=0;j<k+i;j++)

{

if(j%2==0)

printf("%d ",i);

else{

printf("\* ");

}

}

++k;

printf("\n");

}

}

**Question (2)**

//program for question 2

#include <stdio.h>

int main() {

int i,j,n=5;

for(i=0;i<n;i++)

{

for(j=0;j<=i;j++)

{

if((i+j)% 2==0)

printf ("1 ");

else{

printf("0 ");

}

}

printf("\n");

}

}

**Question (3)**

**Similarity between Array and pointer variable :**

Array variable stores address of first element of the array i.e. it stores base address and it behaves like pointer. Pointer is a variable which stores the address of another variable and array variable also stores address. So this is the similarity.

**Difference between Array and pointer variable :**

Let array variable be arr and pointer variable be ptr. We can increment pointer variable (++ptr) but we can not increment array variable like (++arr)..

**Thank You!!**