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NBTC13715  
F8

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Ans ① - It prints nothing because for loop condition fails at the first iteration itself.

Ans ② - loop loop loop loop loop

here, `for(--i && i++ ; i < 10; i += 2)`

`for(0 && 1 ; i < 10 ; i += 2)`

`for(0 ; i < 10 ; i += 2)`

`printf("loop")` // executes

then for loop becomes `(i = 2; i < 10; i++)`

then `printf("loop")` // executes 4 times.

Hence,

Totally 5 loops prints.

Ans ③ - Infinite loop printing Hello will run.

Here in condition place of for loop, we just put a non zero value, thus it becomes infinite for loop.

Ans ④ - The program goes in an infinite loop because `n` is never zero when loop condition `(n != 0)` is checked, `n` changes like 9 7 5 3 1 -1 -3 -5 -7 -9

Ans ⑤ - Runtime Error will come.

There is a bug in the above program. It goes inside the do while loop for `C = 0`. Also as the increment is post increment, so `(n/0)` will create a divide by 0 error so it fails during runtime.

Code

Output

```

Ans (6) - #include <stdio.h>
int main()
{
    int n, c, k, space = 1;
    printf("Enter no. of rows\n");
    scanf("%d", &n);
    space = n - 1;
    for (k = 1; k <= n; k++)
    {
        for (c = 1; c <= space; c++)
            printf(" ");
        space--;

        for (c = 1; c <= 2 * k - 1; c++)
            printf("#");
        printf("\n");
    }

    space = 1;
    for (k = 1; k <= n - 1; k++)
    {
        for (c = 1; c <= space; c++)
            printf(" ");
        space++;
        for (c = 1; c <= 2 * (n - k) - 1; c++)
            printf("#");
        printf("\n");
    }

    return 0;
}

```

Enter no. of rows

10

```

      .
     . .
    . . .
   . . . .
  . . . . .
 . . . . .
. . . . .
. . . . .
. . . . .
. . . . .

```

Code→

Output

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    int i, j;
```

```
    for(i=1; i<=5; i++)
```

```
    {
```

```
        for(j=5; j>i; j--)
```

```
        {
```

```
            printf(" ");
```

```
        }
```

```
        for(j=1; j<=i; j++)
```

```
        {
```

```
            printf("%d", j);
```

```
        }
```

```
        printf("\n");
```

```
    }
```

```
    return 0;
```

```
}
```

1

1 2

1 2 3

1 2 3 4

1 2 3 4 5