

## PATTERN

LBM19C5042

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

void main()
{
    int i, j, n, c = 1;
    printf("enter the order \n");
    scanf("%d", &n);
    for (i = 2; i <= n; i++)
    {
        for (j = 1; j <= n; j++)
        {
            if (j <= i)
            {
                printf("%d\t", c);
                c = c + 1;
            }
            else
                printf("\n");
        }
        printf("\n");
    }
    getch();
}
```

## GRADE

1BM19CS041

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

void main()
{
    int C, S;
    float AVG;
    printf("enter CIE marks\n");
    scanf("%d", &C);
    printf("enter SEE marks\n");
    scanf("%d", &S);
    while (C >= 0 && C <= 50 && S >= 0 && S <= 100)
    {
        AVG = C + (S/2);
        if (AVG >= 90)
        {
            printf("Grade is A");
            break;
        }
        else if (AVG >= 80 && AVG <= 90)
        {
            printf("Grade is B");
            break;
        }
        else if (AVG >= 70 && AVG <= 80)
        {
            printf("Grade is C");
            break;
        }
    }
}
```

```
else if (AVG >= 60 && AVG <= 50)
```

```
{
```

```
    printf("Grade is D");
```

```
    break;
```

```
}
```

```
else
```

```
{
```

```
    printf("Grade is E");
```

```
    break;
```

```
}
```

```
}
```

```
getch();
```

```
}
```

# PRIME

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

```
#include <stdlib.h>
```

```
void main()
```

```
{
```

```
    int n1, n2, i, j, flag, temp; count=0;
```

```
    printf("Enter the value of num1 and num2\n");
```

```
    scanf("%d%d", &n1, &n2);
```

```
    if (n2 < 2)
```

```
    {
```

```
        printf("There are no primes upto %d\n", n2);
```

```
        exit(0);
```

```
    }
```

```
    printf("Prime numbers are\n");
```

```
    temp = n1;
```

```
    if (n1 % 2 == 0)
```

```
    {
```

```
        n1++;
```

```
    }
```

```
    for (i = n1; i <= n2; i = i + 2)
```

```
    {
```

```
        flag = 0;
```

```
        for (j = 2; j <= i/2; j++)
```

```
        {
```

```
            if (i % j == 0)
```

```
            {
```

```
                flag = 1;
```

```
                break;
```



```
}
```

```
}.  
if (flag == 0)
```

```
{
```

```
printf("%d\n", i);
```

```
count.  
}
```

```
}
```

```
getch();
```

```
}
```

## AREA AND VOLUME

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

```
#include <conio.h>
```

```
#include <math.h>
```

```
void main()
```

```
{
```

```
    int c, r, h, result;
```

```
    char option;
```

```
    float A, V;
```

```
    do
```

```
    {
```

```
        printf("AREA & VOLUME\n");
```

```
        printf("1 for cylinder\n");
```

```
        printf("2 for cone\n");
```

```
        printf("3 for sphere\n");
```

```
        printf("enter choices of shape\n");
```

```
        scanf("%d", &c);
```

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

```
        scanf("%d", &r);
```

```
        if (c == 1 || c == 2)
```

```
        {
```

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

```
            scanf("%d", &h);
```

```
        }
```

```
        switch(c)
```

```
        {
```

case 1:  $A = (2 * (3.14) * r * h) + (2 * (3.14) * r * r);$

$V = (3.14) * r * r * h;$

`printf("area is %f & volume is %f", A, V);`

`break;`

Case 2:  $A = ((3.14) * r * (r + \sqrt{h^2 + r^2}));$

$V = ((3.14) * r * r * h) / 3;$

`printf("area is %f & volume is %f", A, V);`

`break;`

Case 3:  $A = (4 * 3.14 * r * r);$

$V = ((3.14) * r * r * r * 4) / 3;$

`printf("area is %f & volume is %f", A, V);`

`break;`

`default: printf("wrong input \n");`

`}`

`printf("do you want to continue? (Y/N) \n");`

`option = getch();`

`} while (option == 'y' || option == 'Y');`

`getch();`

`}`