

week 2

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18M19CS031

```
3) #include <stdio.h>
    int main() {
        int rows, i, j, number = 1;
        printf("Enter the number of rows:");
        scanf("%d", &rows);
        for (i = 1; i <= rows; i++) {
            for (j = 1; j <= i; ++j) {
                printf("%d", number);
                ++number;
            }
            printf("\n");
        }
        return 0;
    }
```

4)

```
#include <stdio.h>
int main ()
{
    int cie, see;
    float total;
    printf ("Enter student marks: ");
    scanf ("%d %d", &cie, &see);
    total = (cie) + see/2;
    printf ("total = %.2f\n", total);
    if (total >= 90) {
        printf ("Grade S");
    }
    else if (total >= 80)
    {
        printf ("Grade A");
    }
    else if (total >= 70)
    {
        printf ("Grade B");
    }
    else if (total >= 60)
    {
        printf ("Grade C");
    }
    else if (total >= 50)
    {
        printf ("Grade D");
    }
    else if (total >= 40)
    {
        printf ("Grade E");
    }
    else
    {
        printf ("Grade F");
    }
    return 0;
}
```

5)

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```
#include <stdio.h>
void main()
{
    int n1, n2;
    printf("Enter the first number");
    scanf("%d", &n1);
    printf("Enter the second number");
    scanf("%d", &n2);
    printf("The prime numbers are : ");
    for (int i = n1; i <= n2; i++)
    {
        int c = 0;
        for (int j = 1; j <= i; j++)
        {
            if (i % j == 0)
            {
                c++;
            }
        }
        if (c == 2)
            printf("%d", i);
    }
}
```

6)

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```

#include <stdio.h>
#include <math.h>
#define PI 3.14

int main()
{
    float radius, height;
    float surface_area, volume;
    int option;

    while (option != -1) {
        printf(" == Menu == \n");
        printf(" 1. Area of cylinder \n");
        printf(" 2. Area of cone \n");
        printf(" 3. Area of sphere \n");
        printf("Enter the option from menu (-1 to exit) \n");
        scanf("%d", &option);

        if (option == 1)
        {
            printf("Enter value for radius and height of a cylinder: \n");
            scanf("%f %f", &radius, &height);

            surface_area = 2 * (22/7) * radius * (radius + height);
            volume = (22/7) * radius * radius * height;

            printf("Surface area of cylinder is: %.3f \n", surface_area);
            printf("Volume of cylinder is: %.3f \n", volume);
        }
        else if (option == 2)
        {

```



```
printf("Enter value of radius and height of a  
cone : \n");  
scanf("%f %f", &radius, &height);
```

```
surface-area = (22/7) * radius * (radius + sqrt(radius  
* radius + height * height));
```

```
volume = (1.0/3) * (22/7) * radius * radius * height;
```

```
printf("surface area of cone is : %.3f \n",  
surface-area);
```

```
printf("\n Volume of cone is : %.3f \n", volume);
```

```
} else if (option == 3) {
```

```
printf("\n Please Enter the radius of a sphere \n");
```

```
scanf("%f", &radius);
```

```
surface-area = 4 * PI * radius * radius;
```

```
volume = (4.0/3) * PI * radius * radius * radius;
```

```
printf("\n The Surface area of a sphere = %.2f \n",  
surface-area);
```

```
printf("\n The Volume of a sphere = %.2f \n", volume);
```

```
}
```

```
}
```

```
return 0;
```

```
}
```