

Number

- **Adam number**

```
#include<stdio.h>
void main ()
{
    int n,rn=0,sqn,r,R,sqrn,rsqnn=0,x,y;
    for (n=0;n<=1000;n++)
    {
        sqn=n*n;
        x=n;
        while (x!=0)
        {
            r=x%10;
            rn=(rn*10)+r;
            x=x/10;
        }
        sqrn=rn*rn;
        y=sqrn;
        while (y!=0)
        {
            R=y%10;
            rsqnn=(rsqnn*10)+R;
            y=y/10;
        }
        if(sqn==rsqnn)
        {
            printf("%d\t",n);
        }
        rn=0;
        rsqnn=0;
    }
}
```

- **Armstrong number**

```
#include<stdio.h>
#include<math.h>
int main ()
{
    int n;
    printf("Armstrong number is:\n");
```

```

for (n=1;n<=2000;n++)
{
    int d=0,r,i;
    double nn=0;
    for (i=n;i!=0;i/=10)
    {
        d++;
    }
    for (i=n;i!=0;i/=10)
    {
        r=i%10;
        nn+=pow(r,d);
    }
    if ((int)nn==n)
    {
        printf("%d ",n);
    }
}
printf("\n");
return 0;
}

```

- **Automorphic**

```

#include<stdio.h>
int main()
{
    int n,s,x,a=1;
    printf("Enter a number:\n");
    scanf("%d",&n);
    s=n*n;
    x=n;
    while (x>0)
    {
        if (x%10!=s%10)
        {
            a=0;
            break;
        }
        x/=10;
        s/=10;
    }
}

```

```

if (a)
{
    printf("%d is an automorphic number.\n",n);
}
else
{
    printf("%d is not an automorphic number.\n",n);
}
return 0;
}

```

- **Duck number**

```

#include<stdio.h>
int main()
{
    int n,d=0;
    printf("Enter a number:\n");
    scanf("%d",&n);
    while (n>0)
    {
        if (n%10==0)
        {
            d=1;
            break;
        }
        n/=10;
    }
    if (d)
    {
        printf("The number is a duck number.\n");
    }
    else
    {
        printf("The number is not a duck number.\n");
    }
    return 0;
}

```

- **Fibonacci**

```
#include <stdio.h>
int main()
{
    int n,i;
    long long int f1=0,f2=1,f3;
    printf("Enter the number:\n");
    scanf("%d",&n);
    printf("Fibonacci Series: ");
    for (i=0;i<n;i++)
    {
        if(i<=1)
        {
            f3=i;
        }
        else
        {
            f3=f1+f2;
            f1=f2;
            f2=f3;
        }
        printf("%lld\t",f3);
    }
    printf("\n");
    return 0;
}
```

- **Magic number**

```
#include <stdio.h>
int main()
{
    int n,sum=0;
    printf("Enter a number:\n");
    scanf("%d",&n);
    while (n>9)
    {
        while (n>0)
        {
            sum += n % 10;
            n /= 10;
        }
    }
}
```

```

        n = sum;
        sum = 0;
    }
    if (n==1)
    {
        printf("%d is a magic number.\n",n);
    }
    else
    {
        printf("%d is not a magic number.\n",n);
    }
    return 0;
}

```

- **Palindrome number**

```

#include<stdio.h>
void main ()
{
    int x,p,rev,a;
    printf("Enter number:\n");
    scanf("%d",&x);
    a=x;
    while (x!=0)
    {
        p=x%10;
        rev=rev*10+p;
        x/=10;
    }
    if(a==rev)
    {
        printf("%d is a Palindrome number.\n",a);
    }
    else
    {
        printf("%d is Not a Palindrome number.\n",a);
    }
}

```

- **Sunny number**

```
#include<stdio.h>
#include<math.h>
void main ()
{
    int n;
    double root;
    for (n=1;n<=1000;n++)
    {
        root=sqrt(n+1);
        if((int)root==root)
        {
            printf("%d\t",n);
        }
    }
    root=0;
}
```

- **Prime sum**

```
#include<stdio.h>
int main()
{
    int n,i,f,sum=0;
    for (n=2;n<=100;n++)
    {
        f=0;
        for (i=2;i<=n/2;i++)
        {
            if(n%i==0)
            {
                f++;
                break;
            }
        }
        if(f==0)
        {
            printf("%d\t",n);
            sum+=n;
        }
    }
    printf("\nSum of Prime numbers are: %d",sum);
    return 0;
}
```