

4. perfect square.

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

void main()
{
    int num, sq;
    clrscr();
    printf("Enter a number:");
    scanf(".f.d", &num);
    sq = sqrt(num);
    if (sq * sq == num)
        printf("%.d is a Perfect Square", num);
    else
        printf("%.d is not a Perfect Square", num);
    getch();
}
```

Output:

Enter a number 16

16 is a Perfect square.

3. Perfect number.

```
# include <stdio.h>
# include <conio.h>
Void main()
{
    int num, i, sum = 0;
    clrscr();
    printf("Enter a number:");
    scanf("%d", &num);
    for (i = 1; i < num; i++)
    {
        if (num - i == 0)
        {
            sum = sum + i;
        }
    }
    if (sum == num)
        printf("%d is a Perfect Number", num);
    else
        printf("%d is not a Perfect number", num);
    getch();
}
```

Output:

```
Enter a number: 6
6 is a Perfect number
```

2. Strong number

```
#include <stdio.h>
#include <conio.h>
int sum = 0;
void main()
{
    int num, temp, digit, fact, i;
    clrscr();
    int sum= 0;
    printf("Enter a number:");
    scanf("%d", &num);
    temp = num;
    while (temp > 0)
    {
        digit = temp % 10;
        fact = 1;
        for (i = 1; i <= digit; i++)
        {
            fact = fact * i;
        }
        sum = sum + fact;
        temp = temp / 10;
    }
    if (sum == num)
        printf("%d is a Strong Number", num);
    else
        printf("%d is not a Strong Number", num);
    getch();
}
```

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Output:

Enter a number: 145

145 is a strong number

1. Finding prime factors of a number

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

void main()
{
    int num, i;

    clrscr();
    printf ("Enter a number:");
    scanf ("%d", &num);
    printf ("Prime factors of %d are:", num);

    for (i=2; i<=num; i++)
    {
        while (num%i == 0)
        {
            printf ("%d", i);
            num = num/i;
        }
    }

    getch();
}
```

Output:

Enter a number: 36

Prime factors of 36 are: 2 2 3 3