24, 36, 9, 10, 11, 12 = arr

0

int min_value = INT_MAX ;

maximum value an integer datatype

24

24

9 max_value = INT_MIN ;

.

.

.

factorial (n)

= n x n-1 x n-2 x n-3 . . . 1

factorial (5) = 5x4x6 = 120

1. Iterative:
For loop. i=1 to i=n

fact *= i ;

fact

fac(n) = n x fac(n-1)

(n-1) * fac(n-2);

2. Recursive

int factorial (int num) {

int value = num;

if (num == 1) return 1;

return value * factorial(num-1);

}

factorial (5); = 5X24 value = 5

100 times

5
120
6

n = 1 to 100

Optimise

```
int fact[101];
fact[0]=1;
for(int i=1; i<=100; i++)
{ fact[i] = fact[i-1]*i;
}
```

fact[i] ⇓ factorial value of i

0 to 100

5 * fact(4);
24

4 * fact(3)
6

3 * fact(2) = 2

2 * fact(1) = 1

1 * fact(0)

0 * fact(-1)

fact(50) = fact[50];

fact(60) = fact[60];

= 5 times

50, 60

```
int t;
cin>>t;
for(int i=0; i<t; i++)
{ int n;
  cin>>n;
}
```