Lec11

02 February 2026 02:02 PM

fact = 1 2 6 24 n = 5

1 2 6 24 120

```
for(int i=1; i<=n; i++){
    fact = fact * i
}
sout(fact)
```

5! x 4! x 3! * 2! x 1!

2 x 3 = 6
6 x 4 = 24
24 x 5 = 120

GCD =

36 → 2, 3, 4, 6, 9, 12, 18, 36
60 → 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60

i = 1

i < small

(n1%i==0 && n2%i==0)
GCD = i

n1 = 6
n2 = 12

GCD = 0 1 2 3 6

```
for (int i = 1; i<=small; i++){
    if(n1%i==0 && n2%i==0){
        GCD = i
    }
}
```

7 <= 6

6%1==0 && 12%1==0
6%2==0 && 12%2==0
6%3==0 && 12%3==0
6%4==0 && 12%4==0
6%5==0 && 12%5==0
6%6==0 && 12%6==0

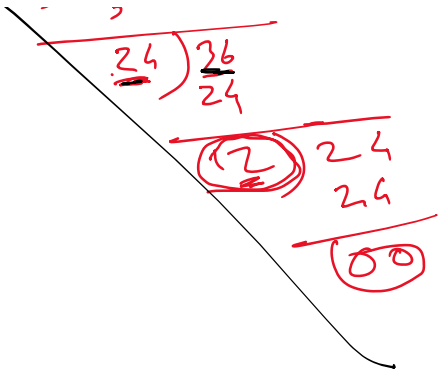
num1 = 36
num2 = 60

divisor, dividend

36) 60 (1
36
24) 36 (1
24

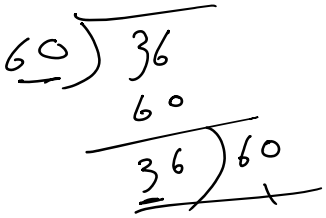
rem = dividend % divisor

dividend = divisor

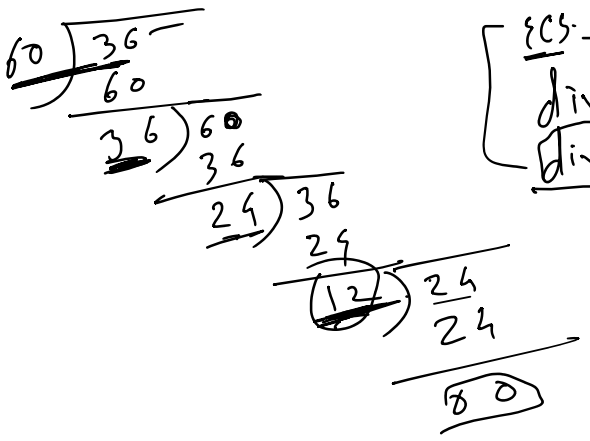


dividend = divisor

divisor = rem



36 60



rem = dividend % divisor

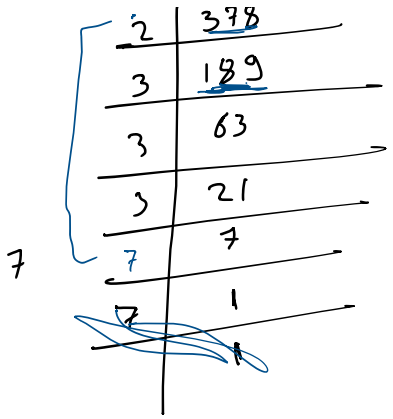
dividend = divisor

divisor = rem

(dividend % divisor != 0)

23337

2	378
3	189



n = 1852

2581