

**DAY 3-30/03/2022**

## **1.Collection of pens**

bool check (int n)

```
{  
    if(n==1)  
    {  
        return false;  
    }  
    for(int i=2;i<n;i++)  
    {  
        if(n%i==0)  
        {  
            return false;  
        }  
    }  
    return true;  
}
```

int minThirdPiles(int A, int B)

```
{  
    int sum;
```

```
for(int i=1;i<=10000;i++)  
{  
    sum=A+B+i;  
    if(check(sum)==true)  
    {  
        return i;  
    }  
}  
}
```

## **2. FIBONACCI NUMBER**

```
class Solution  
{  
public:  
    int fib(int n)  
    {  
        if(n <= 1)  
            return n;  
        return fib(n - 1) + fib(n - 2);  
    }  
};
```

### 3. GCD AND FIBONACCI NUMBER

```
#include <iostream>

int main() {
    int a, b, gcd;
    cin >> a >> b;
    if ( a > b)
    {
        int temp = a;
        a = b;
        b = temp;
    }

    for (int i = 1; i <= b; i++)
    {
        if (a % i == 0 && b % i ==0)
        {
            gcd = i;
        }
    }
    return gcd;
```

```
}
```

#### **4.LAST NON-ZERO DIGIT IN FACTORIAL**

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

```
int lastNon0Digit(int n)
```

```
{
```

```
    int fact=1;
```

```
    for(int i=1;i<=n;i++)
```

```
    {
```

```
        fact=fact*i;
```

```
        while(fact%10==0)
```

```
        {
```

```
            fact=(fact/10)%10;
```

```
        }
```

```
    }
```

```
    return fact;
```

```
}
```

```
int main() {  
    int t;  
    scanf("%d",&t);  
    while(t--)  
    {  
        int n;  
        scanf("%d",&n);  
        printf("%d \n",lastNon0Digit(n));  
    }  
    return 0;  
}
```