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PPS-II(Lab-0)

1) Primality Test

```cpp
#include <iostream>
using namespace std;
int main()
{
   int n;
   cin >> n;
   int a[n];

   for (int i=0;i<n;i++)
      cin >> a[i];

   for(int i=0;i<n;i++)
   {
      bool isPrime=true;

      if(a[i]<=1)
         isPrime=false;
      else
      {
         for(int j=2;j*j<=a[i];j++)
         {
            if(a[i]%j==0)
            {
               isPrime=false;
               break;
            }
         }
      }
      if(isPrime)
         cout << a[i] << " ";
   }
   return 0;
}
```

2) Decimal integer to Binary

```cpp
#include <iostream>
using namespace std;
int main()
{
    int n,i=1;
    cin >> n;
    int temp=n;
    if(n==0)
    {
        cout << "0";
        return 0;
    }
    while(i<=n)
        i*=2;
    i/=2;
    while(i>0 && temp>=0)
    {
        if(temp>=i)
        {
            cout << "1";
            temp-=i;
        }
        else
            cout << "0";
        i/=2;
    }
return 0;
}
```

3) Print 15 leap years from a given year

```cpp
#include <iostream>
using namespace std;
int main()
{
    int n,i=0;
    cin >> n;
    while(i<15)
    {
        if(n%400==0 || (n%4==0 && n%100!=0))
        {
            cout << n << " ";
            i++;
        }
        n++;
    }
return 0;     }
```

4) Reversing a number

```cpp
#include<iostream>
#include<cmath>
using namespace std;
int main()
{
    int num,c=0,sum=0;
    cin >> num;
    int real=num;

    while(num>0)
    {
        num/=10;
        c++;
    }
    num=real;
    while(num>0)
    {
        c--;
        int rem=num%10;
        sum+=rem*pow(10,c);
        num/=10;
    }
    cout << sum;
return 0;
}
```