Q1

#include<iostream>

using namespace std;

int main()

{

int i,a[50],no,pos,size;

cout<<"Enter array size( Max:50 ) :: ";

cin>>size;

cout<<"\nEnter array elements :: \n";

for(i=0; i<size; i++)

{

cout<<"\nEnter arr["<<i<<"] Element :: ";

cin>>a[i];

}

cout<<"\nStored Data in Array :: \n\n";

for(i=0;i<size;i++)

{

cout<<" "<<a[i]<<" ";

}

cout<<"\n\nEnter position to insert number :: ";

cin>>pos;

if(pos>size)

{

cout<<"\nThis is out of range.\n";

}

else

{

cout<<"\nEnter number to be inserted :: ";

cin>>no;

--pos;

for(i=size;i>=pos;i--)

{

a[i+1]=a[i];

}

a[pos]=no;

cout<<"\nNew Array is :: \n\n";

for(i=0;i<size+1;i++)

{

cout<<" "<<a[i]<<" ";

}

}

cout<<"\n";

return 0;

}

Q2

#include<bits/stdc++.h>

using namespace std;

#define ll long long

#define pb push\_back

#define ull unsigned long long

#define pii pair<int, int>

#define pll pair<ll, ll>

#define ff first

#define ss second

#define vii vector<pii>

#define vll vector<pll>

int main(){

int n;

cin>>n;

int count=0;

for(int i=4;n!=count;i++){

for(int j=2;j\*j<=i;j++){

if(i%j==0){

cout<<i<<" ";

count++;

break;

}

}

}

}

Q3

#include<iostream>

#define ll long long int

using namespace std;

void fast()

{

#ifndef ONLINE\_JUDGE

freopen("input.txt", "r", stdin);

freopen("output.txt", "w", stdout);

#endif

}

int main()

{

fast();

ll n;

cin >> n;

ll arr[n];

for (ll i = 0; i < n; i++)

{

cin >> arr[i];

}

ll pos;

cin >> pos;

pos--;

for (ll i = pos; i < n - 1; i++)

{

arr[i] = arr[i + 1];

}

n--;

for (ll i = 0; i < n; i++)

{

cout << arr[i] << " ";

}

}

Q4

#include<iostream>

using namespace std;

int main()

{

int a, b, x, y, temp, hcf, lcm;

cout<<"\n Enter Two Numbers : \n";

cin>>x>>y;

a=x;

b=y;

while(b!=0)

{

temp=b;

b=a%b;

a=temp;

}

hcf=a;

lcm=(x\*y)/hcf;

cout<<"\n HCF : "<<hcf<<"\n";

cout<<"\n LCM : "<<lcm<<"\n";

return 0;

}

Q6

#include<iostream>

#include<stdio.h>

#include<math.h>

using namespace std;

int fact(int i)

{

int j;

int fac=1;

for (j = 1; i <i; j++)

{

fac=fac\*j;

}

return fac;

}

int main()

{

cout<<"enter a number for series :";

int x,i,c;

double s=0.0;

cin>>x;

cout<<endl;

cout<<"enter the term upto which series needed :";

cin>>c;

for (i = 0;i<=c; i++)

{

s=s+(pow(x,i) \* pow(3,i))/fact(i);

}

cout<<s;

return 0;

}

Q5