CTS Questions

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1.Prime

#include<iostream>

using namespace std;

int main()

{

int Min,Max,j,i,count=0,MainCnt=0;

cout<<"Enter the Range:\nMin value->";

cin>>Min;

cout<<"Max value->";

cin>>Max;

for(i=Min;i<=Max;i++)

{

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

if(i%j==0)

count++;

if(count==1)

MainCnt++;

count=0;

}

cout<<"The prime numbers between "<<Min<<" and "<<Max<<" is "<<MainCnt;

return 0;

}

2.

#include<iostream>

using namespace std;

int main()

{

int i,j,n,a[30],res[30];

cout<<"Enter the n value: ";

cin>>n;

cout<<"Enter the array values: ";

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

{

cin>>a[i];

res[i]=1;

}

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

for(j=0;j<n;j++)

if(i!=j)

res[i]=res[i]\*a[j];

cout<<"The resultant array is";

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

cout<<res[i]<<" ";

}

3. #include<iostream>

#include<bitset>

using namespace std;

int main()

{

  int i,num1,num2,value,m1,m2;

  cout<<"Enter 2 numbers : ";

  cin>>num1>>num2;

  string a = bitset<8>(num1).to\_string();

  string b = bitset<8>(num2).to\_string();

  for(i=0;i<8;i++)

    if(a[i]=='1')

    {

      m1=8-i;

      break;

    }

  for(i=0;i<8;i++)

    if(b[i]=='1')

    {

      m2=8-i;

      break;

    }

  if(m1<m2)

    m1=m2;

  cout<<a<<"\n"<<b<<"\n";

  //cout<<m1<<" "<<m2<<"\n";

  value = 0;

  for(i=8-m1;i<8;i++)

  {

    if(a[i]!=b[i])

    {

      value++;

      //cout<<a[i]<<"  "<<b[i]<<"\n";

    }

  }

  cout<<"Hamming DIst : "<<value<<"\n";

}

4. include<iostream>

using namespace std;

int main()

{

int j,i,n,arr[30],sort[30],k,temp;

cout<<"Enter the array size";

cin>>n;

cout<<"Enter the array";

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

cin>>arr[i];

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

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

if(arr[i]<arr[j])

{

temp=arr[i];

arr[i]=arr[j];

arr[j]=temp;

}

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

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

cout<<"\nEnter the k value:";

cin>>k;

if(k<n)

cout<<"\nThe "<<k<<"th biggest element in array is "<<arr[k];

else

cout<<"\nThe "<<k<<"biggest not possible";

}

5. using namespace std;

int main()

{

char String1[30],String2[30];

int i,j,count=0,Length1,Length2;

cout<<"Enter String 1 ";

cin>>String1;

cout<<"Enter String 2 ";

cin>>String2;

Length1=strlen(String1);

Length2=strlen(String2);

if(Length1>Length2)

{

for(i=0;i<Length1;i++)

for(j=0;j<Length2;j++)

if(String1[i]==String2[j])

{

String1[i]='\*';

String2[i]='$';

count++;

}

cout<<count;

if(count==Length2)

cout<<"TRUE";

}

else if(Length2>Length1)

{

for(i=0;i<Length2;i++)

for(j=0;j<Length1;j++)

if(String1[i]==String2[j])

{

count++;

String1[i]='\*';

String2[i]='$';

}

cout<<count;

if(count==Length1)

cout<<"TRUE";

}

}

6. #include<iostream>

using namespace std;

int main()

{

  int n,value,temp;

  cout<<"N : ";

  cin>>n;

  cout<<"Enter elements : ";

  int arr[n];

  for(int i=0;i<n;i++)

  {

    cin>>arr[i];

  }

  for(int i=0;i<n-1;i++)

  {

    for(int j=i;j<n;j++)

    {

      if(arr[i]>arr[j])

      {

        temp = arr[i];

        arr[i] = arr[j];

        arr[j] = temp;

      }

    }

  }

  value = 0;

  for(int i=0;i<n;i++)

  {

    value += arr[i]\*(n-i);

  }

  cout<<value<<"\n";

}

7. #include<iostream>

using namespace std;

int main()

{

int flag=1,i,j,n;

cout<<"Enter the N value";

cin>>n;

//cout<<"Enter the array";

for(i=n;i>0;i--)

{

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

{

cout<<flag;

}

if(flag==0)

flag=1;

else if(flag==1)

flag=0;

cout<<"\n";

}

}

8. #include<iostream>

using namespace std;

int main()

{

int n,i;

cout<<"Enter the number";

cin>>n;

loop:

if(n>0)

{

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

if(n%i==0)

{

cout<<i<<" ";

}

}

else if(n==0)

cout<<"Zero has no factors";

else if(n<0)

{

n=-n;

goto loop;

}

}

9. #include<iostream>

using namespace std;

int main()

{

char Time[2];

int flag,Hours,minutes;

do

{

cout<<"Enter the Time:\n";

cout<<"Hours?\n";

cin>>Hours;

cout<<"Minutes?\n";

cin>>minutes;

cout<<"AM or PM\n";

cin>>Time;

if(((Hours>=0) && (Hours<=12)) && ((minutes >= 0) && (minutes<60)))

{

if((Time[0]=='A'||Time[0]=='a')&&Hours!=12)

cout<<"The Time is "<<Hours<<":"<<minutes;

else if(Time[0]=='P'||Time[0]=='p')

cout<<"The Time is "<<Hours+12<<":"<<minutes<<"\n";

else if(( (Time[0]=='A')||(Time[0]=='a'))&& (Hours==12))

cout<<"The Time is 0:"<<minutes;

}

else

{

cout<<Hours<<":"<<minutes<<"Is not a time...";

}

cout<<"\nWant to enter another string \n1=Yes\n2=No";

cin>>flag;

}while(flag==1);

}

10. #include<iostream>

using namespace std;

int main()

{

  int n,i,k,count;

  cout<<"Enter the no of element : ";

  cin>>n;

  int arr[n],arr1[n];//= new int[n];

  for(i=0;i<n;i++)

    cin>>arr[i];

  k=0;

  for(i=0;i<n-1;i++)

  {

    count = 0;

    for(int j=i+1;j<n;j++)

    {

      if(arr[i]==arr[j])

        count++;

    }

    if(count==0)

      arr1[k++]=arr[i];

  }

  if(arr[i-1]!=arr[i])

    arr1[k++] = arr[i];

  for(int i=0;i<k;i++)

    cout<<arr1[i]<<" ";

  cout<<"\n";

}

11. #include<iostream>

#include<math.h>

using namespace std;

int main()

{

  int num1,num2;

  cout<<"Enter 2 numbers : ";

  cin>>num1>>num2;

  cout<<num1<<" + "<<num2<<" = ";

  while(num2!=0)

  {

    num1++;

    num2--;

  }

  cout<<num1<<"\n";

}

12.