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1.WAPtoCheckPrimeNumberusingloop?

//C++:checkifnumberisprime

#include<iostream>

usingnamespacestd;

intmain(){

intn,i=2;

cin>>n;

while(i<=n/2){

if(n%i==0)

break;

i++;

}

if(i<=n/2)

cout<<"NotPrime"<<endl;

else

cout<<"Prime"<<endl;

return0;

}

==========================================================================

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1.WAPtoCheckifaNumberisPositiveorNegative

#include<iostream>

usingnamespacestd;

intmain()

{

intnum;

cout<<"Enterthenumbertobechecked:";

cin>>num;

if(num >=0)

cout<<num <<"isapositivenumber.";

else

cout<<num <<"isanegativenumber.";

return0;

}

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2.WAPtoFindFactorialofanumber

#include<iostream>

usingnamespacestd;

intmain()

{

inti,fact=1,number;

cout<<"EnteranyNumber:";

cin>>number;

for(i=1;i<=number;i++){

fact=fact\*i;

}

cout<<"Factorialof"<<number<<"is:"<<fact<<endl;

return0;

}

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3.WAPtoDisplayFibonacciseries

#include<iostream>

usingnamespacestd;

intmain(){

intn1=0,n2=1,n3,i,number;

cout<<"Enterthenumberofelements:";

cin>>number;

cout<<n1<<""<<n2<<"";

for(i=2;i<number;++i)

{

n3=n1+n2;

cout<<n3<<"";

n1=n2;

n2=n3;

}

return0;

}

==========================================================================

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5.WAPtoDisplayFibonacciseriesuptoagiven

number(insteadofterms)

Input:20

Output:0+1+1+2+3+5+8+13

#include<iostream>

usingnamespacestd;

intmain()

{

intlimit,first=0,second=1,next,num;

cout<<"EnterthelimitofFibonacciseries"<<endl;

cin>>num;

for(intp=0;p<num;p++)

{

if(p<=1)

next=p;

else

{

next=first+second;

first=second;

second=next;

}

cout<<next<<"";

}

return0;

}

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4.WAPtoDisplayUppercasedAtoZ

voiduppercaseAlphabets()

{

for(charc='A';c<='Z';++c)

cout<<c<<"";

cout<<endl;

}

intmain()

{

cout<<"UppercaseAlphabets"<<endl;

uppercaseAlphabets(ch);

cout<<"LowercaseAlphabets"<<endl;

lowercaseAlphabets(ch);

return0;

}

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5.WAPtoSwaptwonumbersusingtemporaryvariable

#include<iostream>

usingnamespacestd;

intmain()

{

inta=5,b=10,temp;

cout<<"Beforeswapping."<<endl;

cout<<"a="<<a<<",b="<<b<<endl;

temp=a;

a=b;

b=temp;

cout<<"\nAfterswapping."<<endl;

cout<<"a="<<a<<",b="<<b<<endl;

return0;

}

====================================================================

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8.WAPtoSwaptwonumberswithoutusingtemporary

Variable

#include<iostream>

usingnamespacestd;

intmain()

{

inta=5,b=10;

cout<<"Beforeswapa="<<a<<"b="<<b<<endl;

a=a\*b;

b=a/b;

a=a/b;

cout<<"Afterswapa="<<a<<"b="<<b<<endl;

return0;

}

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9.WAPtoCheckwhetheranalphabetisvowelor

Consonant

#include<iostream>

usingnamespacestd;

intmain()

{

charc;

intisLowercaseVowel,isUppercaseVowel;

cout<<"Enteranalphabet:";

cin>>c;

isLowercaseVowel=(c=='a'||c=='e'||c=='i'||c=='o'||c=='u');

isUppercaseVowel=(c=='A'||c=='E'||c=='I'||c=='O'||c=='U');

if(isLowercaseVowel||isUppercaseVowel)

cout<<c<<"isavowel.";

else

cout<<c<<"isaconsonant.";

return0;

}

==========================================================================

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10.WAPtoFindthelargestnumberamongthegiven

Numbers

#include<iostream>

usingnamespacestd;

intmain()

{

inta=3,b=4,c=10;

if(a>b&&a>c){

cout<<"isgreatestamongthreenumbers"<<a;

}

elseif(b>a&&b>c){

cout<<"isgreatestamongthreenumbers"<<b;

}

elseif(c>a&&c>b){

cout<<"isgreatestamongthreenumbers"<<c;

}

return0;

}

==========================================================================

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11.WAPtoReverseaNumber

#include<iostream>

usingnamespacestd;

intmain(){

intn,reversedNumber=0,remainder;

cout<<"Enteraninteger:";

cin>>n;

while(n!=0){

remainder=n%10;

reversedNumber=reversedNumber\*10+remainder;

n/=10;

}

cout<<"ReversedNumber="<<reversedNumber;

return0;

}

==========================================================================

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12.WAPtoProgram toCheckPalindrome

#include<iostream>

usingnamespacestd;

intmain()

{

intn,r,sum=0,temp;

cout<<"EntertheNumber=";

cin>>n;

temp=n;

while(n>0)

{

r=n%10;

sum=(sum\*10)+r;

n=n/10;

}

if(temp==sum)

cout<<"NumberisPalindrome.";

else

cout<<"NumberisnotPalindrome.";

return0;

}

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13.WAPtoProgram toCheckPrimeNumber

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14.WAPtoDisplayPrimeNumbersBetweentwo

Intervals

#include<iostream>

usingnamespacestd;

intmain(){

intlow,high,i;

boolisPrime=true;

cout<<"Entertwonumbers(intervals):";

cin>>low>>high;

cout<<"\nPrimenumbersbetween"<<low<<"and"<<high<<"are:"<<endl;

while(low<high){

isPrime=true;

if(low==0||low==1){

isPrime=false;

}

else{

for(i=2;i<=low/2;++i){

if(low%i==0){

isPrime=false;

break;

}

}

}

if(isPrime)

cout<<low<<"";

++low;

}

return0;

}

==========================================================================

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15.WAPtoCheckArmstrongNumberfor3digit

Number

#include<iostream>

usingnamespacestd;

intmain(){

intnum,originalNum,remainder,result=0;

cout<<"Enterathree-digitinteger:";

cin>>num;

originalNum =num;

while(originalNum !=0){

remainder=originalNum %10;

result+=remainder\*remainder\*remainder;

originalNum /=10;

}

if(result==num)

cout<<num <<"isanArmstrongnumber.";

else

cout<<num <<"isnotanArmstrongnumber.";

return0;

}

==========================================================================

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16.WAPtoCheckArmstrongNumberforndigit

Number

#include<cmath>

#include<iostream>

usingnamespacestd;

intmain(){

intnum,originalNum,remainder,n=0,result=0,power;

cout<<"Enteraninteger:";

cin>>num;

originalNum =num;

while(originalNum !=0){

originalNum /=10;

++n;

}

originalNum =num;

while(originalNum !=0){

remainder=originalNum %10;

power=round(pow(remainder,n));

result+=power;

originalNum /=10;

}

if(result==num)

cout<<num <<"isanArmstrongnumber.";

else

cout<<num <<"isnotanArmstrongnumber.";

return0;

}

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17.WAPtoArmstrongNumbersBetweenTwo

Integers

#include<stdio.h>

#include<math.h>

intmain(){

intlow=100;

inthigh=400;

printf("Theamstrongnumbersbetween%dand%dis\n",low,high);

for(inti=low+1;i<high;++i){

intx=i;

intn=0;

while(x!=0){

x/=10;

++n;

}

intpow\_sum =0;

x=i;

while(x!=0){

intdigit=x%10;

pow\_sum +=pow(digit,n);

x/=10;

}

if(pow\_sum ==i)

printf("%d",i);

}

printf("\n");

return0;

}

==========================================================================

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18.WAPtoPrimeNumbersBetweenTwoIntegers

#include<iostream>

usingnamespacestd;

intcheckPrimeNumber(int);

intmain(){

intn1,n2;

boolflag;

cout<<"Entertwopositiveintegers:";

cin>>n1>>n2;

if(n1>n2){

n2=n1+n2;

n1=n2-n1;

n2=n2-n1;

}

cout<<"Primenumbersbetween"<<n1<<"and"<<n2<<"are:";

for(inti=n1+1;i<n2;++i){

flag=checkPrimeNumber(i);

if(flag)

cout<<i<<"";

}

return0;

}

intcheckPrimeNumber(intn){

boolisPrime=true;

if(n==0||n==1){

isPrime=false;

}

else{

for(intj=2;j<=n/2;++j){

if(n%j==0){

isPrime=false;

break;

}

}

}

returnisPrime;

}

==========================================================================

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19.WAPtoRepresentanumberasSum ofTwoPrime

Numbers

Input:34Output:34=3+31,34=5+29,34=11+

23,34=17+17

#include<iostream>

usingnamespacestd;

intcheckPrime(intn);

intmain(){

intn,i,flag=0;

cout<<"Enterapositiveinteger";

cin>>n;

for(i=2;i<=n/2;++i){

if(checkPrime(i)==1){

if(checkPrime(n-i)==1){

printf("%d=%d+%d\n",n,i,n-i);

flag=1;

}

}

}

if(flag==0)

cout<<"cannotbeexpressedasthesum oftwoprimenumbers."<<n;

return0;

}

intcheckPrime(intn){

inti,isPrime=1;

for(i=2;i<=n/2;++i){

if(n%i==0){

isPrime=0;

break;

}

}

returnisPrime;

}

==========================================================================

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20.WAPtoConvertDecimaltoOctal

#include<iostream>

usingnamespacestd;

intdecimalToOctal(intdecimalnum)

{

intoctalnum =0,temp=1;

while(decimalnum !=0)

{

octalnum =octalnum +(decimalnum %8)\*temp;

decimalnum =decimalnum /8;

temp=temp\*10;

}

returnoctalnum;

}

intmain()

{

intdecimalnum;

cout<<"EnteraDecimalNumber";

cin>>decimalnum;

cout<<"EquivalentOctalNumber"<<decimalToOctal(decimalnum);

return0;

}

==========================================================================

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21.WAPtoConvertOctaltoDecimal

#include<iostream>

usingnamespacestd;

intmain()

{

longintoctal,decimal=0;

inti=0;

cout<<"Enteranyoctalnumber";

cin>>octal;

while(octal!=0)

{

decimal=decimal+(octal%10)\*pow(8,i++);

octal=octal/10;

}

cout<<"Equivalentdecimalvalue:"<<decimal;

return0;

}

==========================================================================

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22.WAPtoconvertbinarynumbertodecimal

#include<iostream>

usingnamespacestd;

intconvert(longlongn);

intmain(){

longlongn;

cout<<"Enterabinarynumber:";

cin>>n;

printf("%lldinbinary=%dindecimal",n,convert(n));

return0;

}

intconvert(longlongn){

intdec=0,i=0,rem;

while(n!=0){

rem =n%10;

n/=10;

dec+=rem \*pow(2,i);

++i;

}

returndec;

}

==========================================================================

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23.WAPtoconvertdecimalnumbertobinary

#include<iostream>

usingnamespacestd;

voiddecToBinary(intn)

{

intbinaryNum[32];

inti=0;

while(n>0){

binaryNum[i]=n%2;

n=n/2;

i++;

}

for(intj=i-1;j>=0;j--)

cout<<binaryNum[j];

}

intmain()

{

intn=17;

decToBinary(n);

return0;

}

==========================================================================

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24.WAPtoFactorialofaNumberUsingRecursion

#include<stdio.h>

usingnamespacestd;

longintmultiplyNumbers(intn);

intmain(){

intn;

printf("Enterapositiveinteger:");

scanf("%d",&n);

printf("Factorialof%d=%ld",n,multiplyNumbers(n));

return0;

}

longintmultiplyNumbers(intn){

if(n>=1)

returnn\*multiplyNumbers(n-1);

else

return1;

}

25.WAPtoConvertDecimaltoOctal

#include<iostream>

usingnamespacestd;

voiddecToOctal(intn)

{

intoctalNum[100];

inti=0;

while(n!=0){

octalNum[i]=n%8;

n=n/8;

i++;

}

for(intj=i-1;j>=0;j--)

cout<<octalNum[j];

}

intmain()

{

intn=33;

decToOctal(n);

return0;

}

==========================================================================

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26.WAPtoConvertBinarytoOctal

#include<stdio.h>

usingnamespacestd;

intmain()

{

longintbinarynum,octalnum =0,j=1,remainder;

printf("Enterthevalueforbinarynumber:");

scanf("%ld",&binarynum);

while(binarynum !=0)

{

remainder=binarynum %10;

octalnum =octalnum +remainder\*j;

j=j\*2;

binarynum =binarynum /10;

}

printf("Equivalentoctalvalue:%lo",octalnum);

return0;

}

==========================================================================

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27.WAPtoConvertOctaltoBinary

#include<stdio.h>

#include<math.h>

longoctalToBinary(intoctalnum)

{

intdecimalnum =0,i=0;

longbinarynum =0;

while(octalnum !=0)

{

decimalnum =decimalnum +(octalnum%10)\*pow(8,i);

i++;

octalnum =octalnum /10;

}

i=1;

while(decimalnum !=0)

{

binarynum =binarynum +(decimalnum %2)\*i;

decimalnum =decimalnum /2;

i=i\*10;

}

returnbinarynum;

}

intmain()

{

intoctalnum;

printf("Enteranoctalnumber:");

scanf("%d",&octalnum);

printf("Equivalentbinarynumberis:%ld",octalToBinary(octalnum));

return0;

}

==========================================================================

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28.WAPtoReverseaSentenceUsingRecursion

Input:CDACMumbai

Output:iabmum CADC

#include<stdio.h>

usingnamespacestd;

voidreverseSentence();

intmain(){

printf("Enterasentence:");

reverseSentence();

return0;

}

voidreverseSentence(){

charc;

scanf("%c",&c);

if(c!='\n'){

reverseSentence();

printf("%c",c);

}

}

==========================================================================

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29.WAPtocalculatepowerusingrecursion

#include<stdio.h>

usingnamespacestd;

intpower(intn1,intn2);

intmain(){

intbase,a,result;

printf("Enterbasenumber:");

scanf("%d",&base);

printf("Enterpowernumber(positiveinteger):");

scanf("%d",&a);

result=power(base,a);

printf("%d^%d=%d",base,a,result);

return0;

}

intpower(intbase,inta){

if(a!=0)

return(base\*power(base,a-1));

else

return1;

}

==========================================================================

========

30.WAPtoFindthelargestelementinanarray

Input:89,3450,23,100,39,455

Output:455

#include<stdio.h>

usingnamespacestd;

intmain()

{

intsize,i,largest;

printf("\nEnterthesizeofthearray:");

scanf("%d",&size);

intarray[size];

printf("\nEnter%delementsofthearray:\n",size);

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

{

scanf("%d",&array[i]);

}

largest=array[0];

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

{

if(largest<array[i])

largest=array[i];

}

printf("\nlargestelementpresentinthegivenarrayis:%d",largest);

return0;

}