Structuri principale

Structura liniara

Cmmdc &Cmmmc

Pseudocod

start  
citeste a,b  
cat timp a &ne; b executa  
daca a>b atunci  
a &larr; a-b  
altfel  
b &larr; b-a  
scrie "CMMDC =",a  
stop

C++ - Cmmdc

int a,b;

{

cin>>a>>b;

while(a!=b)

if(a>b)

a=a-b;

else

b=b-a;

cout<<„CMMDC=”<<a;

Pascal -CMMDC

program pascal;

var a,b:integer;

begin

readln(a,b);

while(a<>b) do

begin

if (a>b) then

a:=a-b

else

b:=b-a;

end;

writeln(‘CMMDC = ‘,a);

end;

readln;

end.

}

Pseudocod

start

citeste x ,y

a&larr; x; b&larr; y;

cat timp x &ne; y executa

daca x>y atunci

x&larr; x-y

altfel

y&larr; y-x

scrie "CMMDC =", (a\*b)/x

stop

Cmmmc –c++

int a,b,x,y;

{

cin>>x>>y;

a=x; b=y;

while(x!=y)

if(x>y)

x=x-y;

else y=y-x;

cout<<„CMMMC=”<<(a\*b)/x;

}

Pascal- cmmmc

program pascal;

var x,y,a,b:integer;

begin

readln(x,y);

a:=x; b:=y;

while(x<>y) do

begin

if (x>y) then

x:=x-y

else

y:=y-x;

end;

writeln(‘CMMMC = ‘, (a\*b)/x);

readln;

end.

INVERSUL

pseudocod

citeste n

inv=0

cat timp a &ne; 0 executa

c &larr; n%10

inv &larr; inv + c

n &larr; n/2

scrie inv

c++

int n, inv, c;

{

cout<<„n=”;

cin>>n;

inv=0;

while(n!=0)

{

c=n%10;

inv=inv\*10+c;

n=n/10;

}

cout<<„Inversul=”<<inv;

}

pascal

program pascal;

var n, inv, c;

begin

write(‘n=’);

readln(n);

while(n<>0) do

begin

c:= n mod 10;

inv:=inv\*10 +c;

n=n/10;

end;

writeln(‘Inversul =’,inv);

readln;

end.

Palindrom

Pseudocod

citeste n

copie &larr; n

cat timp a &ne; 0 executa

c &larr; n%10

inv &larr; inv + c

n &larr; n/2

daca copie = inv atunci

scrie ” Numarul este palindrom”

altfel scrie ”Numarul nu este palindrom”

c++

int n,inv, c, copie;

{

cout<<„n=”;

cin>>n;

copie=n;

while(n!=0)

{

c=n%10;

inv=inv\*10+c;

n=n/10;

}

if(copie==inv)

cout<<„Palindrom”;

else

cout<<„Nu”;

}

pascal

program pascal;

var n, inv, c, copie;

begin

write(‘n=‘); readln(n);

copie := n;

while (n<>0) do

begin

c:= n mod 10;

inv:=inv\*10+c;

n=n/10;

end;

if(copie=inv) then

writeln(’Numarul este palindrom’)

else

writeln(’Numarul nu este palindrom’);

readln;

end.

Suma cifre numar

pseudocod

citeste n

suma = 0

cat timp n &larr; 0 executa

c &larr; n%10

suma &larr; suma + c

n &larr; n / 10

scrie suma

c++

int n, suma;

suma=0;

cout<<„n=”; cin>>n;

while (n!=0){

suma=suma+n%10;

n=n/10;}

cout<<„Suma cifrelor este „<<suma;

pascal

program pascal

var n, suma: integer;

suma:=0;

write(’n=’); readln(n);

while (n<>0) do

begin

c:=n mod 10;

suma:=suma+c;

n:=n/10;}

end;

writeln(’Suma cifrelor este’, suma);

readln;

end.

numar cifre

pseudocod

citeste n

numar = 0

cat timp n &larr; 0 executa

numar larr; numar +1;

n &larr; n / 10

scrie numar

c++

int n, numar;

numar=0;

cout<<„n=”; cin>>n;

while (n!=0){

numar=numar +1;

n=n/10;}

cout<<„Numarul cifrelor este ” <<numar;

program pascal

var n,numar: integer;

numar:=0;

write(’n=’); readln(n);

while (n<>0) do

begin

numar:=numar+c;

n:=n/10;}

end;

writeln(’Numarul cifrelor este’, numar);

readln;

end.