**Program** sem1;

**Uses** Crt;

**var**

a,b,x,y,z:real;

**begin**

write('Введите значение a=');

readln(a);

write('Введитезначение b=');

readln(b);

write('Введите значение x=');

readln(x);

**if** a > b **then**

**begin**

**if** x >15 **then**

y:=sqrt(abs(x\*x\*x+5));

**if** x <= 15 **then**

y:=5\*x+ln(x);

writeln('a >b,поэтому значение y=', y:5:3);

**end**;

**if** a < b **then**

**begin**

z:=(2\*exp(x)\*x\*x\*x)/cos(x);

**if** z >0 **then**

writeln('a < b поэтомузначение z=', z:5:3)

**else**

writeln('z отрицательное число');

**end**;

**if** a = b **then**

writeln('a = b');

**end**.

**Program** sem2;

**uses**

Crt;

**var**

a, b, y, x: real;

t: integer;

**begin**

write('Введитезначение a=');

readln(a);

write('Введитезначение b=');

readln(b);

x := 0;

**for**t := 1 **to** 21 **do**

**begin**

**if**x <1 **then** y := 1;

**if**x >2 **then** y := exp(a \* x) \* cos(b \* x);

**if**(x >= 1) **and** (x <= 2) **then** y := a \* x \* x \* log2(x);

writeln('Y[',x,']=', y:5:3);

x := x + 0.15;

**end**;

**end**.

**Program** sem3;

**Uses** crt;

**Var**a:**array**[1..13] **of** integer;

p,n,i:integer;

**begin**

p:=1;

**For** i:=1 **to** 13 **do**

**begin**

write('Введите a[',i,']=');

readln(a[i]);

**if**(a[i]\*a[i] < i) **then** p:=p\*a[i];

**end**;

writeln('Произведение равно =', p);

**end**.

**program** sem4;

**uses**

crt;

**var**

a: **array**[1..100] **of** integer;

S, N, i, Max3, iMax3, iMaxCount: integer;

**begin**

write('Введите размер массива=');

readln(N);

S :=0;

**for**i := 1 **to** N **do**

**begin**

write('Введите a[', i, ']=');

readln(a[i]);

**if**a[i] <0 **then** S := S + a[i];

**end**;

Max3 := -100500;

iMaxCount := 0;

**for**i := 1 **to** N **do**

**begin**

**if**a[i] **mod** 3 = 0 **then**

**if**a[i] > Max3 **then**

**begin**

Max3 := a[i];

iMax3 := i;

iMaxCount := iMaxCount + 1;

**end**;

**end**;

**if**(iMaxCount>0) **and** (iMax3 <> N) **then begin**

a[iMax3+1]:=abs(S);

**for**i:=1 **to** N **do**

write('a[',i,']=', a[i], ' ');

**end**

**else**

writeln('Нет элементов кратных 3 либо максимальный элемент последний');

**end**.

Program abc1;

vara,b:integer; Y1,Y2,Y,X:real;

begin

write ('A=');

readln (A);

write ('B=');

readln (B);

Y1:=arctan ((A+B)/pi);

Y2:=abs(A\*A-exp(ln(abs(B))\*4));

Y:=Y1/Y2;

x:=exp((A+B)/pi)\*(cos(sin(Y))+(pi/2));

writeln (Y1);

writeln (Y2);

writeln (y);

writeln (X);

end.

Program abc2;

vara,b:integer; ae,be:real;

begin

write ('a=');

readln (a);

write ('b=');

readln (b);

ifa=bthen

write ('Числа равны, введите другие')

else

begin

ae:=exp (ln(abs(a))\*b);

if a<0 then

ae:=ae\*(-1);

if (b mod 2)=0 then

ae:=abs(ae);

be:=exp (ln(abs(b))\*a);

if (b<0)then

be:=be\*(-1);

if (a mod 2)=0 then

be:=abs(be);

ifae>be then

write ('a^b=',ae,' большеb^a=',be)

else

write ('b^a=',be,' большеa^b=',ae);

end;

end.

Program abc3;

var i,s1,s2,s3,x,z,c:integer;

begin

write ('x=');

readln (x);

s1:=0; s2:=0; s3:=0; z:=1; c:=1;

for i:=1 to 6 do

s1:=s1+(i\*i+x);

while z<7 do

begin

s2:=s2+(z\*z+x);

z:=z+1;

end;

repeat

s3:=s3+(c\*c+x);

c:=c+1;

until c>6;

write (s1,' ',s2,' ',s3,' ');

end.

Program abc5;

var a:array [1..10] of integer;

k,i:integer;

begin

k:=0;

For i:=1 to 10 do

begin

write('Введите a[',i,']=');

readln(a[i]);

if (a[i] mod 3 = 0) and (a[i]<>0) then

k:=k+1;

end;

write ('k=',k);

end.

program abc6;

var a:array [1..20] of integer;

i,j,imax,max,b,n:integer;

begin

write ('n=');

readln (n);

For i:=1 to n do

begin

write('Введите a[',i,']=');

readln(a[i]);

end;

for i:=1 to n do

write('a[',i,']=', a[i], ' ');

max:=A[1]; imax:=1;

for i:=1 to n do

if max<A[i] then

begin

imax:=i;

max:=A[i];

end;

writeln;

if (imax=1) or (imax=2) then

for i:=1 to N do

write('a[',i,']=', a[i], ' ')

else

begin

for i:=1 to (imax-1) do

for j:=1 to (imax-i) do

if A[j]>A[j+1] then

begin

B:=A[j];

A[j]:=A[j+1];

A[j+1]:=B;

end;

for i:=1 to N do

write('a[',i,']=', a[i], ' ');

end;

end.

program abc7;

var a:array [1..10,1..10] of integer;

i,j,s:integer;

begin

for i:=1 to 3 do

for j:=1 to 4 do

begin

write ('введите a[',i,',',j,']=');

readln (a[i,j]);

end;

s:=0;

for i:=1 to 3 do

for j:=1 to 4 do

if (a[i,j]>5) or (a[i,j]<-1) then

s:=s+a[i,j];

write (s);

end.

program abc8;

var a:array [1..10,1..10] of integer;

p:array [1..10] of integer;

max,s,imax,n,i,j,m:integer;

begin

write ('n=');

read (n);

write ('m=');

read (m);

for i:=1 to n do

for j:=1 to m do

begin

write ('a[',i,',',j,']=');

readln (a[i,j]);

end;

s:=0;

max:=-1000;

for i:=1 to n do

p[i]:=1;

for i:=1 to n do

begin

for j:=1 to m do

p[i]:=A[i,j]\*p[i];

if p[i]>max then

begin

max:=p[i];

imax:=i;

end;

end;

for j:=1 to n do

s:=a[imax,j]+s;

write (s);

end.