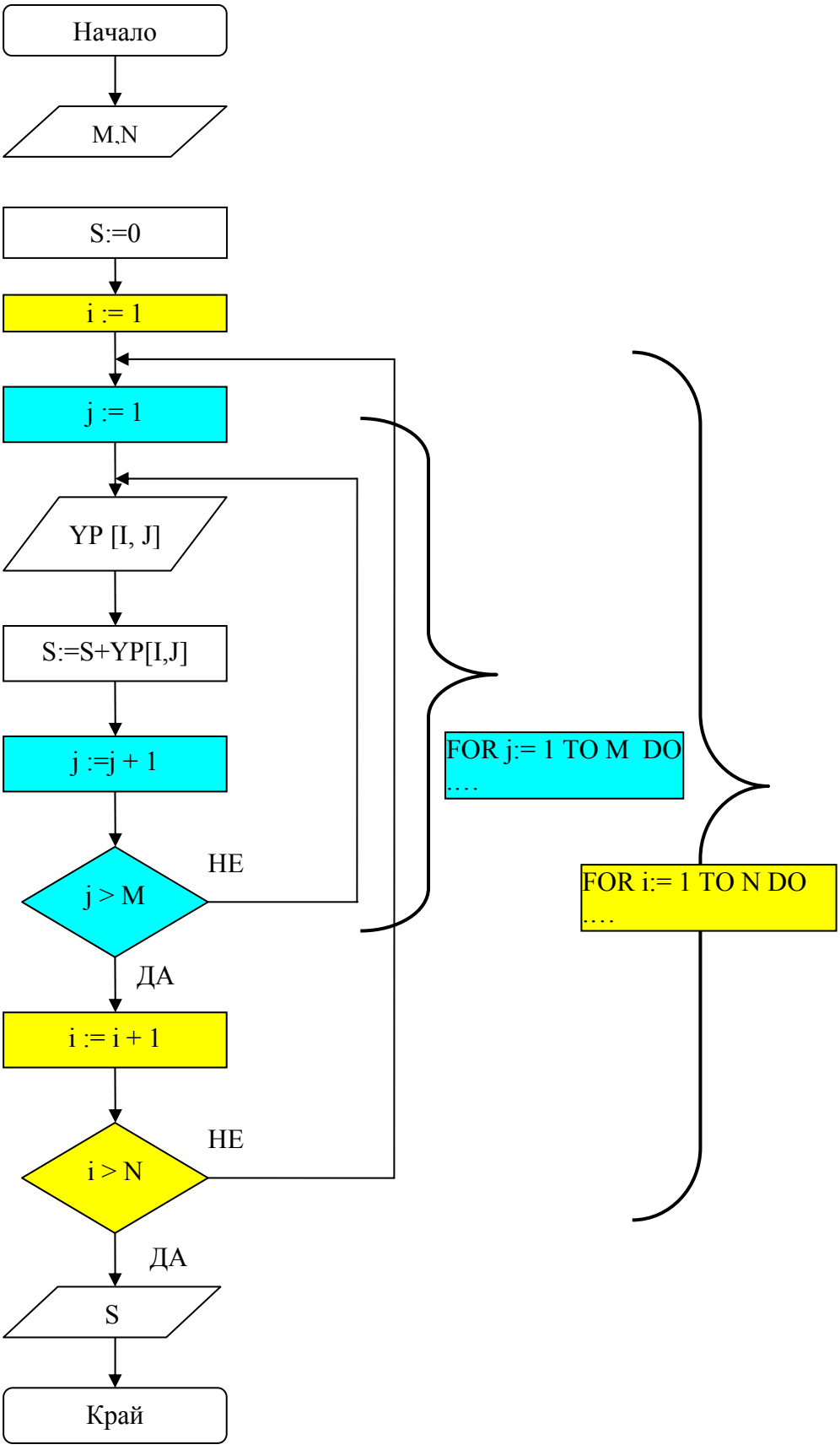
Работа с двумерни масиви

Пример 1: Да се състави алгоритъм и програма за намиране на сумата на елементите на двумерен масив YP[N,M], чиито елементи са от реален тип.

Блок-схема на алгоритъма:



Пример 2:

```
PROGRAM NULIRANE;
{nulirane na otricatelnite elementi na masiv}
VAR I,J,N : INTEGER;
P : REAL;
A : ARRAY[1..50,1..50] OF REAL;
BEGIN
REPEAT
WRITELN;
{vavezdane broj na redovete i stylbovete na masiva}
WRITE('VAVEDI N<=50 ');
READ(N)
UNTIL (N>=1) AND (N<=50);
{vavezdane na stojnosti na elementite na masiva}
FOR I:=1 TO N DO
FOR J:=1 TO N DO
BEGIN
WRITE('VAVEDI A[',I,',',J,'] ');
READ(A[I,J])
END;
{nulirane ne otricatelnite elementi na masiva}
FOR I:=1 TO N DO
FOR J:=1 TO N DO
IF A[I,J]<0 THEN A[I,J]:=0;
WRITELN;
{izvezdane na prerabotenia masiv}
FOR I:=1 TO N DO
FOR J:=1 TO N DO
WRITELN('A[',I,',',J,']=',A[I,J]:5:2);
END.
```

Пример 3:

```
PROGRAM GLDIAG;
{PROIZVEDENIE NA POLOZITELNITE ELEMENTI NAD GLAVNIA DIAGONAL}
VAR I,J,N : INTEGER;
P : REAL;
A : ARRAY[1..50,1..50] OF REAL;
BEGIN
REPEAT
WRITELN;
WRITE('VAVEDI N<=50 ');
READ(N)
UNTIL (N>=1) AND (N<=50);
FOR I:=1 TO N DO
FOR J:=1 TO N DO
BEGIN
WRITE('VAVEDI A[',I,',',J,'] ');
READ(A[I,J])
END;
P:=1;
FOR I:=1 TO (N-1) DO
FOR J:= (I+1) TO N DO
IF A[I,J]>0 THEN P:=P*A[I,J];
WRITELN;
WRITELN('PROIZVEDENIETO NA POLOZITELNITE ELEMENTI NAD GLAVNIA DIGONAL E ', P)
END.
```

Пример 4:

```
PROGRAM SUMLN; (*SUMA PO REDOVE*)
VAR
 I,J,M,N:INTEGER;
(*M-BR.REDOVE,N-BR.STALBOVE*)
R:INTEGER; (*R-NOMER NA RED S MIN SUMA*)
SR,MIN:REAL; (*MIN-MIN SUMA NA RED*)
             (*SR-SR.STOINOST NA RED S MIN SUMA*)
T:ARRAY [1..50,1..30] OF REAL;
SUMA:ARRAY[1..50] OF REAL; (*SUMA PO REDOVE*)
BEGIN
REPEAT
WRITE ('VAVEDETE BROI REDOVE M<=50');
READLN(M)
UNTIL (M>=1) AND (M<=50);
REPEAT
WRITELN ('VAVEDETE BROI STALBOVE N<=30');
READLN(N)
UNTIL (N>=1) AND (N<=30);
WRITELN;WRITELN('VAVEDETE STOINOSTI ZA ELEMENTI NA MASIVA');
FOR I:=1 TO M DO
FOR J:=1 TO N DO
BEGIN
WRITELN('T[',I,',',J,']=');
READLN(T[I,J])
END;
(*NAMIRANE SUMA NA ELEMENTI PO REDOVE*)
FOR I:=1 TO M DO
BEGIN
SUMA[I]:=0.0;
FOR J:=1 TO N DO
SUMA[I]:=SUMA[I]+T[I,J]
END;{KRAI NA CIKAL PO I}
MIN:=SUMA[1];
R:=1;
FOR I:=2 TO M DO
IF SUMA[I]<MIN THEN
BEGIN
MIN:=SUMA[I];
R:=I
END;
SR:=MIN/N; (*SR.STOINOST NA ELEMENTI OT REDA SMINIMALNA SUMA*)
WRITELN('SUMI NA ELEMENTI PO REDOVE');
FOR I:=1 TO M DO
WRITELN('SUMA[',I,']=',SUMA[I]);
WRITELN;
WRITELN('MINIMALNA SUMA V RED ',R:2)
END.
```

Пример 5:

```
program indeks;
{izvezdane na elementite s ceten indeks}
var i, N :integer;
A: array[1..20] of real;
begin
writeln;
write('vaveddete broj na elementite na
masiva N<=20 ');
read(N);
writeln;
write('vavedete elementite na masiva');
writeln;
for i:=1 to N do
begin
write('A[',i,']=');
readln(A[i])
end;
writeln;
for i:=1 to N div 2  do
writeln('A[',2*i,']=',A[2*i]);
end.
```

Задачи за самостоятелна работа:

Задачите за едномерни масиви да се решат за двумерен масив.