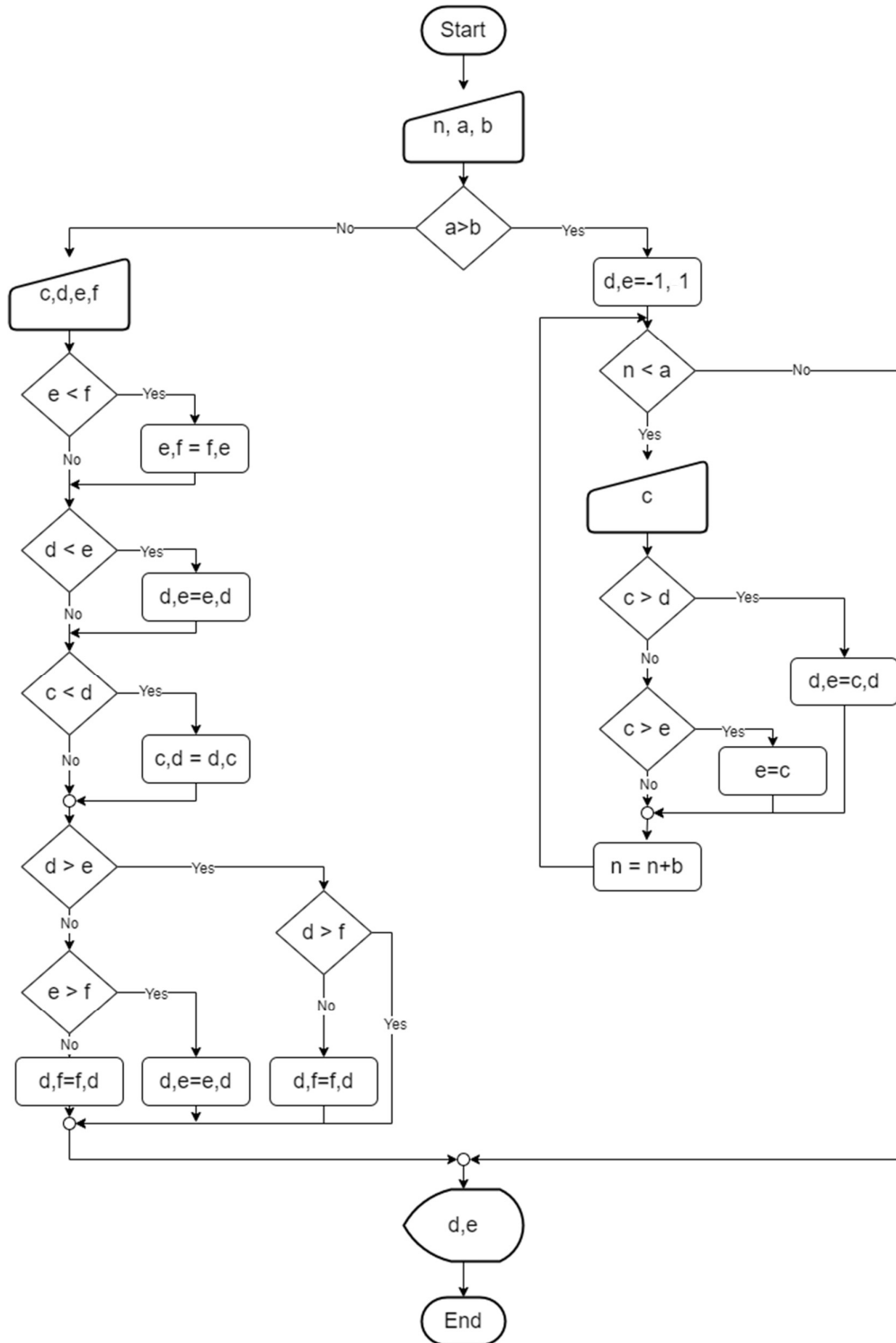


## Flowchart Midterm 2 2023

Write the program that work as in the flowchart below.



## Input

The first line contains three integers:  $n$ ,  $a$ , and  $b$ . Please use the following statement to read the data.

```
n,a,b = [int(e) for e in input().split()]
```

Each of the following lines contains one integer according to the process from the flowchart.

## Output

One line contains the output from the flowchart (with no input that would cause the program to run infinitely).

## Examples

Input	Output
10 2 8 10 2 3 4	4 2
1 2 1 4 3 2 1	4 -1
10 4 8 1 2 3 4	3 2
1 4 8 10 5 3 4	5 4
2 8 1 7 8 2 3 6 5	8 7
2 8 3 3 4	4 3