International Baccalaureate
Baccalauréat International
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Diploma Programme

Approved notation for developing pseudocode

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When developing pseudocode teachers must use the symbols below, which are those used in mathematics.

This information should be distributed to candidates as close as possible to the commencement of teaching of the course. This notation sheet will be available to candidates during the external examinations.

Conventions	Variable names are all capitals, for example, CITY Pseudocode keywords are lower case, for example, loop, if … Method names are mixed case, for example, getRecord Methods are invoked using the "dot notation" used in Java, C++, C#, and similar languages, for example, BIGARRAY.binarySearch(27)

Variable names	These will be provided and comments // used, for example:
	N = 5 // the number of items in the array
	SCOREHISTORY,getExam(NUM) // get the student's score on exam NUM

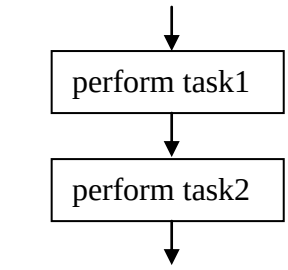
Assigning a value to a variable	Values will be assigned using = , for example:
	N = 5 // indicates the array has 5 data items
	VALUE[0] = 7 // assigns the first data item in the array a value of 7

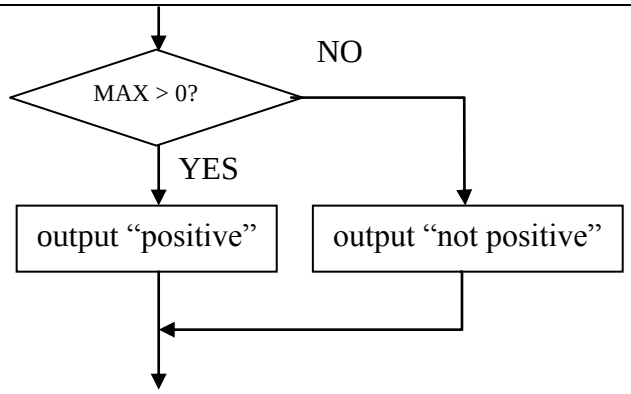
Output of information	Output—this term is sufficient to indicate the data is output to a printer, screen, for example: output COUNT // display the count on the screen

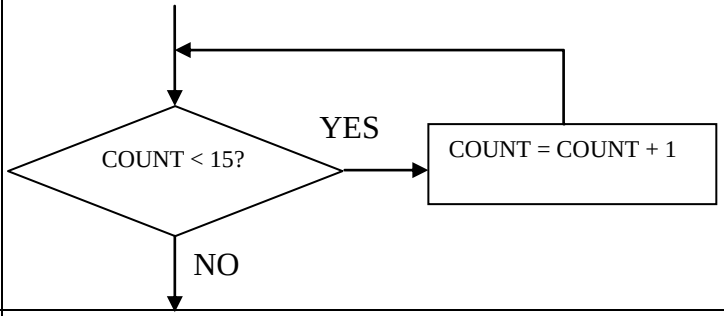
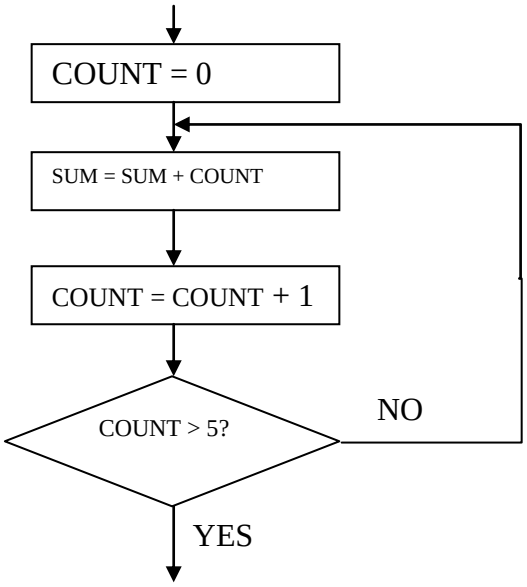
Symbol	Definition	Examples	
=	is equal to	X = 4, X = K	If X = 4 **No == ?**
>	is greater than	X > 4	if X > 4 then
>=	is greater than or equal to	X >= 6	loop while X >= 6
<	is less than	VALUE[Y] < 7	loop until VALUE[Y] < 7
<=	is less than or equal to	VALUE[] <=12	if VALUE[Y] <= 12 then
≠	not equal to	X ≠ 4, X ≠ K	
AND	logical AND	A AND B	if X < 7 AND Y > 2 then
OR	logical OR	A OR B	if X < 7 OR Y > 2 then
NOT	logical NOT	NOT A	if NOT X = 7 then
mod	modulo	15 mod 7 = 1	if VALUE[Y] mod 7 = 0 then
div	integer part of quotient	15 div 7 = 2	if VALUE[Y] div 7 = 2 then **:O**

there's while and from/to loop below. what's the until loop!? what programming language even has it!?

onenote: didn't iterate during the loops…

Operation	Flowchart example	Pseudocode example
sequential operations		perform task1 perform task2

conditional operations		if MAX > 0 then
		output “positive”
		else
		output “not positive”
		end if

while-loop		loop while COUNT < 15 COUNT = COUNT + 1 end loop
from/to-loop		loop COUNT from 0 to 5 SUM = SUM + COUNT end loop **why aren’t we iterating this loop!?**