

Dick

(PLEASE PRINT)

FIRST NAME	MIDDLE NAME	LAST NAME	DATE
ADDRESS		CITY AND STATE	
COMPANY	CITY AND STATE	CODE	
NAME OF TEST ADMINISTRATOR	BRANCH		

Nº 25496



NCR*

**ELECTRONIC
DATA-PROCESSING
PROGRAMMERS'
TEST E51
(REVISION 5)**

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**FILL IN THE BLANKS BELOW,
AND THEN STUDY THE DIRECTIONS CAREFULLY**

(PLEASE PRINT)

CHECK ONE	NCR APPLICANT	NCR EMPLOYEE	CUSTOMER APPLICANT	CUSTOMER EMPLOYEE	STUDENT	
EXPERIENCED PROGRAMMER?	YES <input type="checkbox"/>	NO <input type="checkbox"/>	NUMBER OF YEARS	SEX	M <input type="checkbox"/> F <input type="checkbox"/>	AGE
HIGH SCHOOL GRADUATE?	YES <input type="checkbox"/>	NO <input type="checkbox"/>	GRAD. DATE	SOCIAL SECURITY NUMBER		SCORE
NAME OF UNIVERSITY(S)				NUMBER OF YEARS		
MAJOR FIELD(S)		DEGREE(S)		DATE(S)		

DIRECTIONS

In this booklet, a number of problems are stated in the form of flow-charts.

- 1 A flow-chart is simply a "road map" by which you must find your way from one "town" to the next, and obey every instruction you come to.
- 2 Always follow the "road" downward, or to the right, unless an arrow indicates a different direction, or unless an instruction requires you to do otherwise.
- 3 When you come to a fork in the "road" there will be a question for you to answer; match your answer with the "signposts" on the branches leading out of the fork, and you will know which way to go.
- 4 When you are told to put a number into a box, it is understood that whatever number was previously in that box has just been erased.
- 5 All numbers used in this test are to be whole numbers.
- 6 Mark up the flow-charts in any way you feel will help you. Use the margins, or the blank left-hand pages, for your "scratch" work. **Do all your work in this booklet.**
- 7 When you are finished, copy your answers into the spaces on this cover. **Use extreme care in doing so,** since this copy of your answers will be used in scoring the test.

COPY YOUR ANSWERS HERE

1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		

PRINT NAME AT TOP OF NEXT PAGE, THEN DO EXAMPLE A

EXAMPLE A:

Box No.	1	2	3	4	5	6	7	8	9	10
	6	3	9	2	11	2	91	48	66	1

START

①

Add: (number in box 4) + (number in box 2), put result into box 7.

②

Add: (number in box 7) + (number in the box whose number is in box 6), put result into box 6.

③

Multiply: (number in box 6) × (number in box 1), put result into box 5.

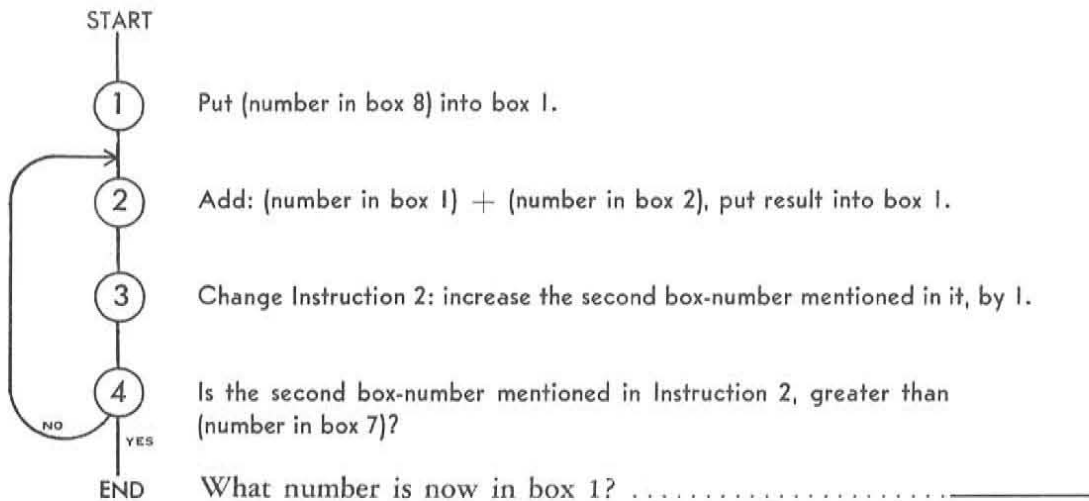
END

What number is now in box 5?

DO NOT TURN THE PAGE UNTIL YOU ARE TOLD TO DO SO

EXAMPLE B:

Box No.	1	2	3	4	5	6	7	8
	3	7	2	1	5	12	4	0



DO NOT TURN THE PAGE UNTIL YOU ARE TOLD TO DO SO

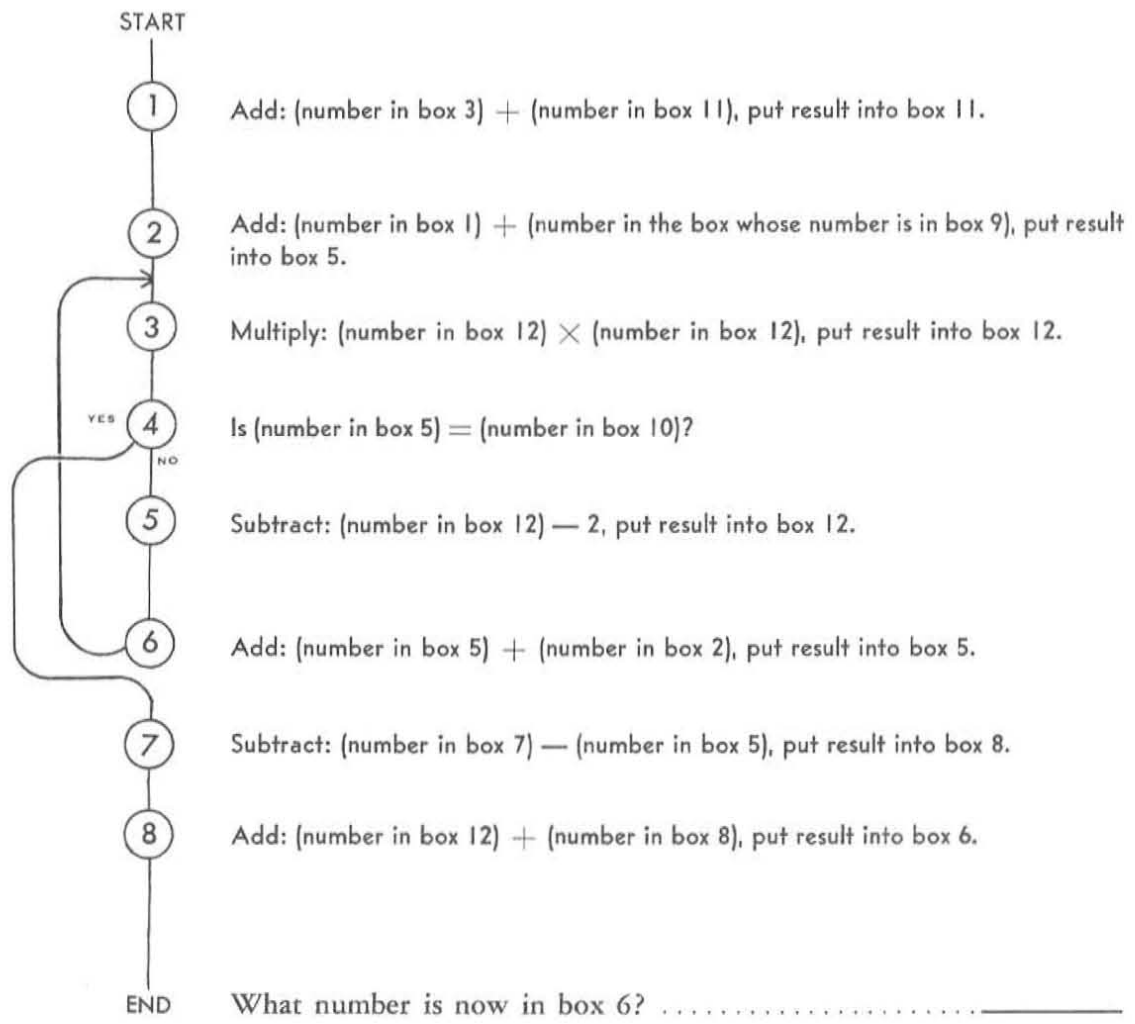
NOW, GO BACK AND READ THE DIRECTIONS AGAIN

Be sure to refer to the directions as often as necessary during the test, if you have any doubt whatever about the "ground rules".

The directions are complete, and no questions will be answered by the supervisor.

1

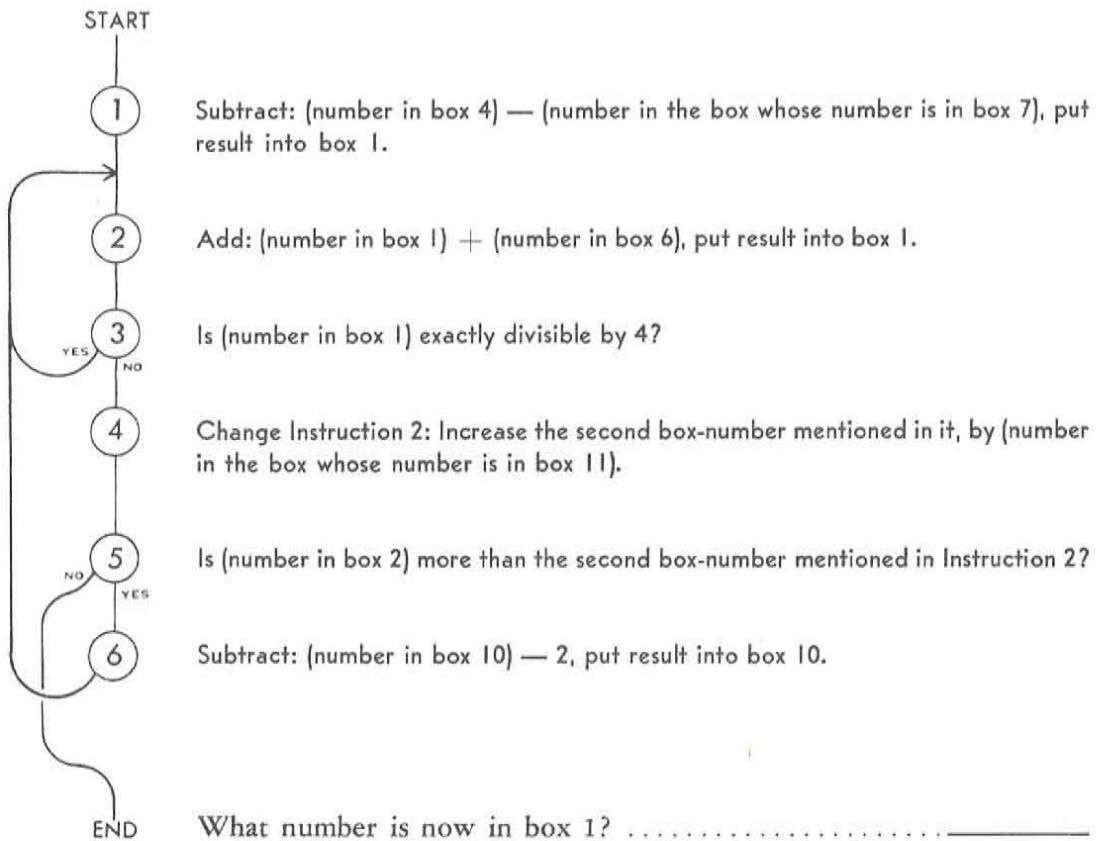
Box No.	1	2	3	4	5	6	7	8	9	10	11	12
	2	3	1	5	7	6	21	7	11	9	0	2



2

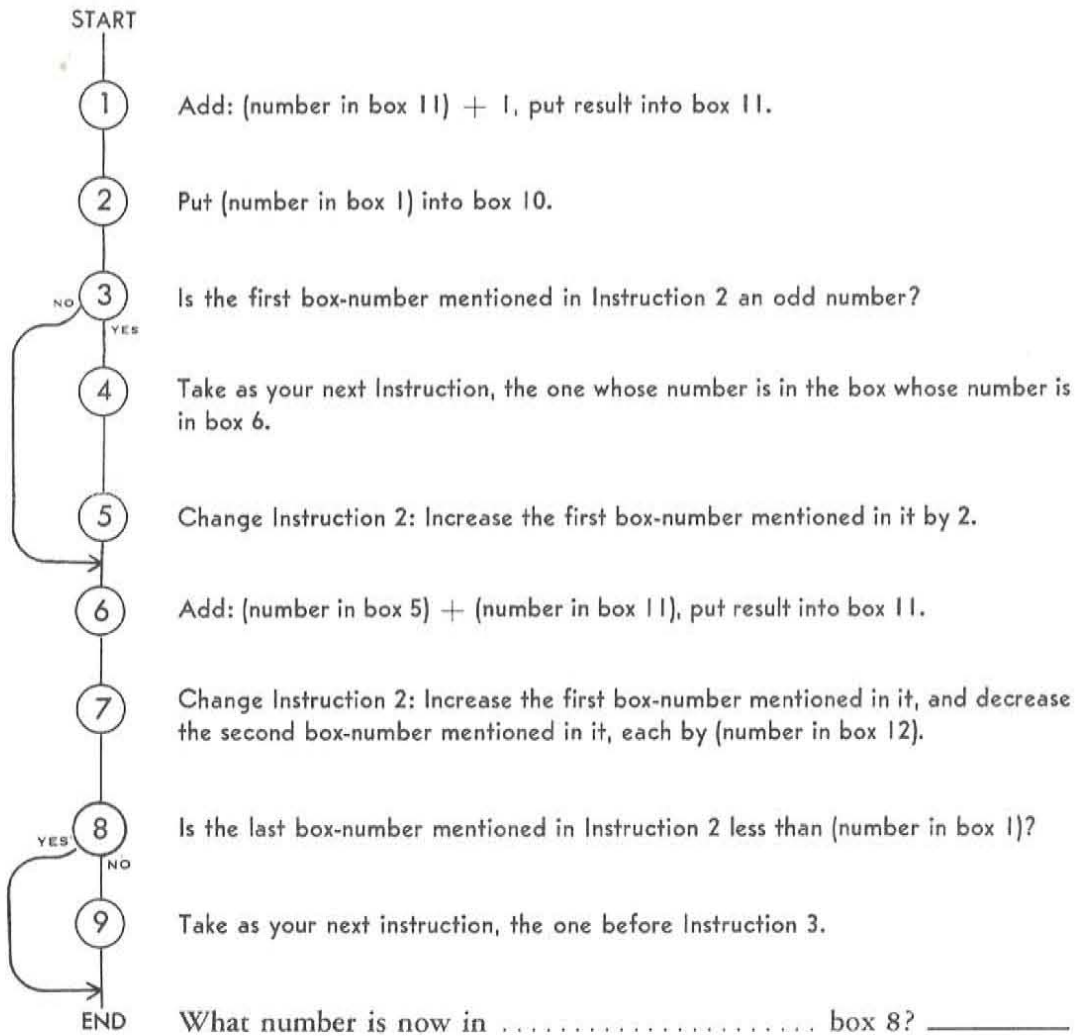
Box No.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
-8	13	1	6	2	5	13	6	4	7	5	2	6	7	9



3

Box No.	1	2	3	4	5	6	7	8	9	10	11	12
	8	6	5	7	3	2	2	11	10	-2	4	1



READ THESE DIRECTIONS

The problems in the next part of the test are slightly different from those you have just done.

In these problems, you will be told exactly what each flow-chart is to accomplish, and you must decide what number must be in a specified box, in order that someone following the flow-chart will do the required job—*no more and no less*.

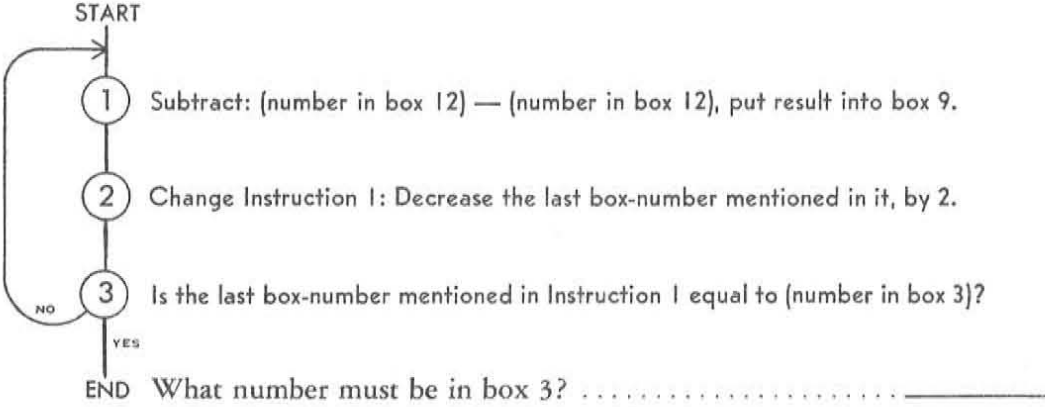
TURN THE PAGE, AND CONTINUE

4

The purpose of the following flow-chart is to put a zero in each of the boxes: 5, 7, and 9.

In order to accomplish exactly this — no more and no less — what number must be in box 3?

1	2	3	4	5	6	7	8	9	10	11	12
12	7		2	3	19	6	0	1	72	-3	9

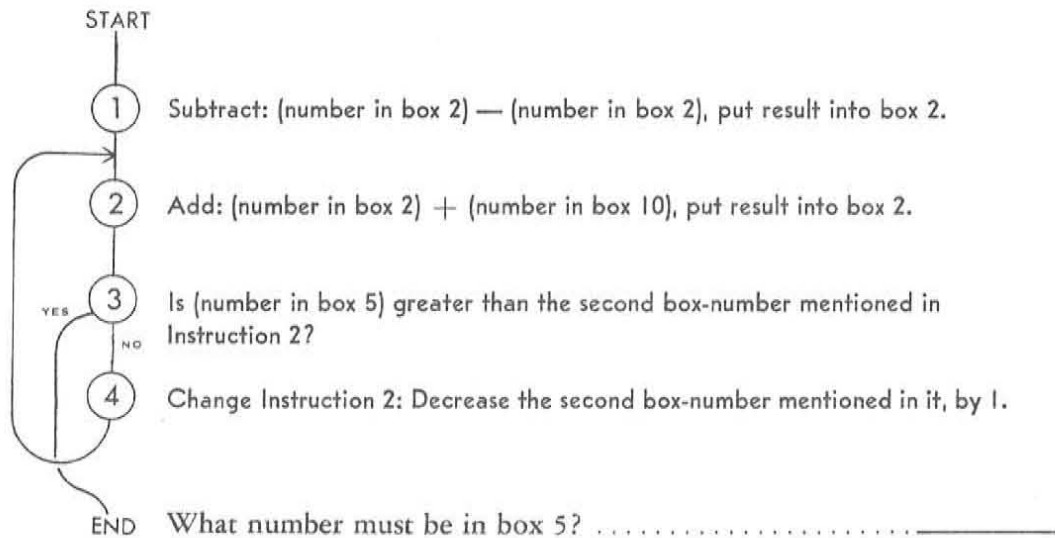


5

The purpose of the following flow-chart is to add the numbers in boxes 7, 8, 9, and 10 and put the total into box 2.

In order to accomplish exactly this — no more and no less — what number must be in box 5?

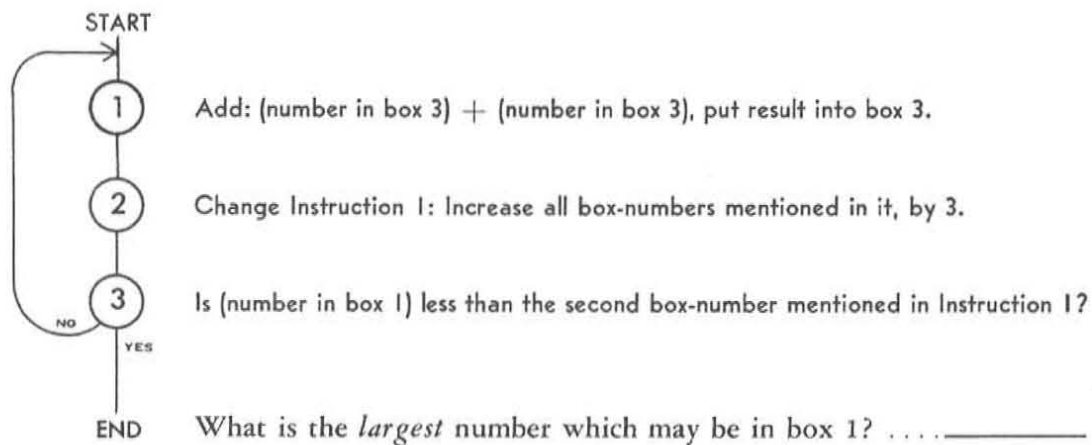
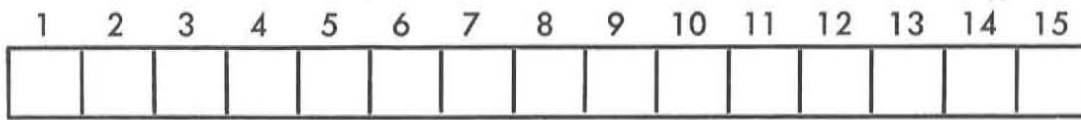
1	2	3	4	5	6	7	8	9	10
16	1	4	-3		7	5	2	8	11



6

The purpose of the following flow-chart is to double the number in each of the boxes 3, 6, 9, and 12.

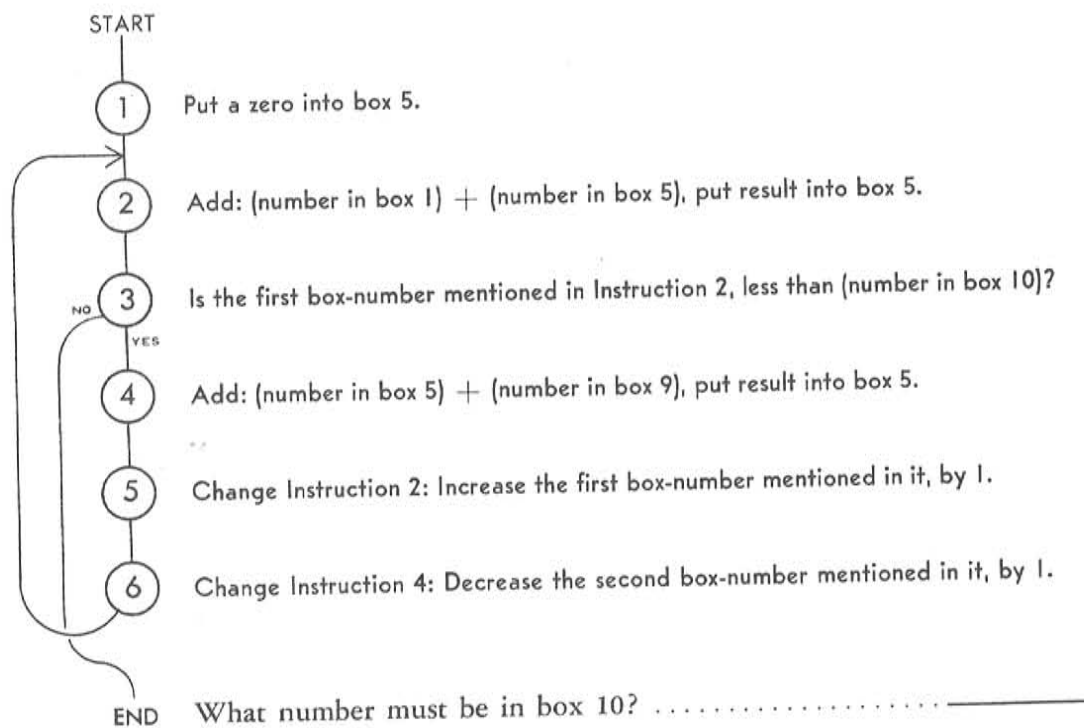
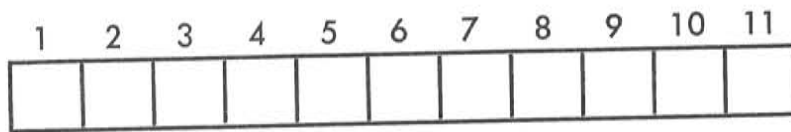
In order to accomplish exactly this — no more and no less — what is the largest number which may be in box 1?



7

The purpose of the following flow-chart is to add the numbers in boxes 1, 2, 3, 4, 7, 8, and 9, and put the total in box 5.

In order to accomplish exactly this — no more and no less — what number must be in box 10?



READ THESE DIRECTIONS

In the following problems, you are told something about the result, and you must determine what the contents of the boxes must have been, in order to obtain that result.

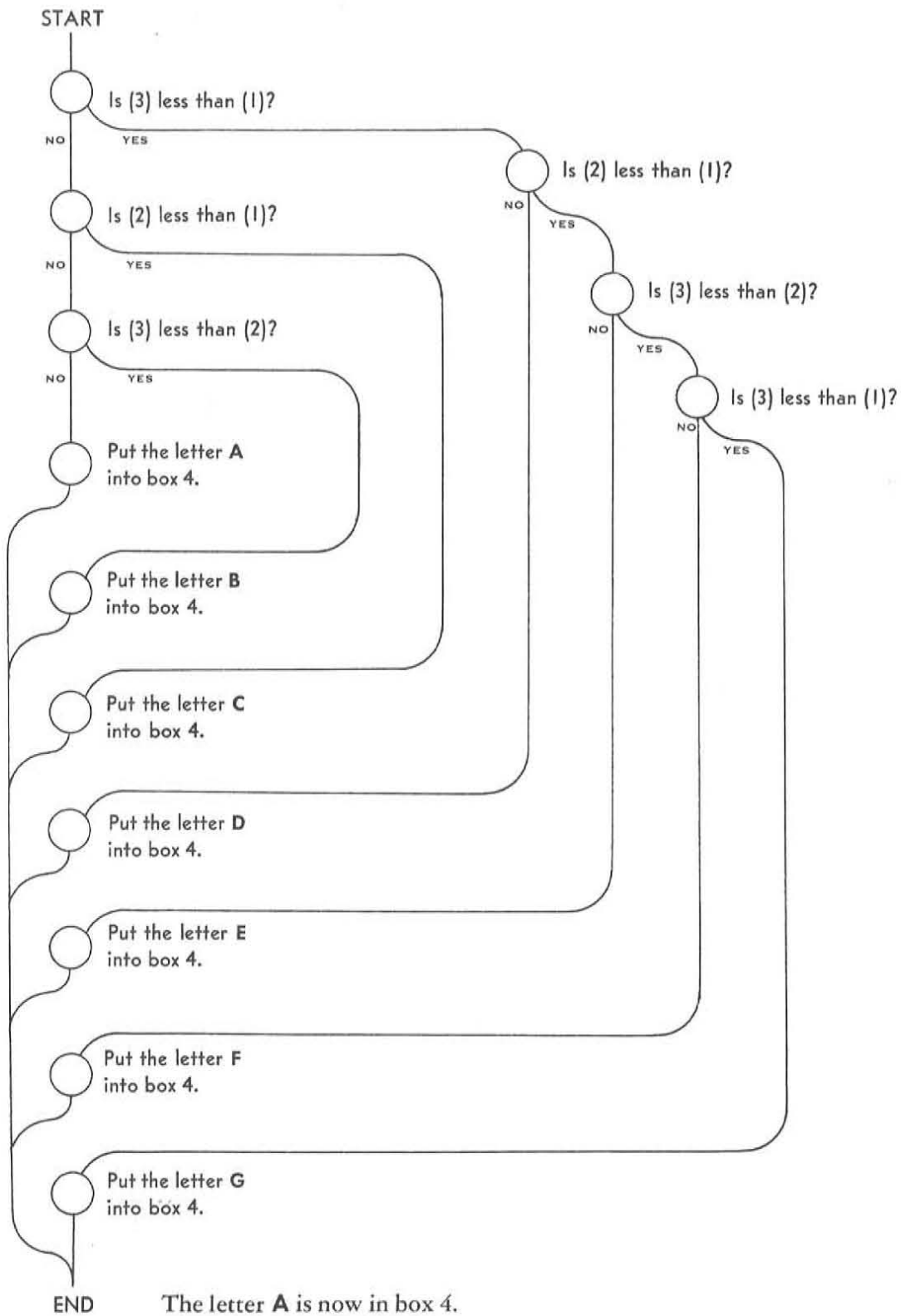
In these problems, the expression (number in box X) is abbreviated as (X).

For example: "Is (4) greater than (7)?"

means "Is (number in box 4) greater than (number in box 7)?"

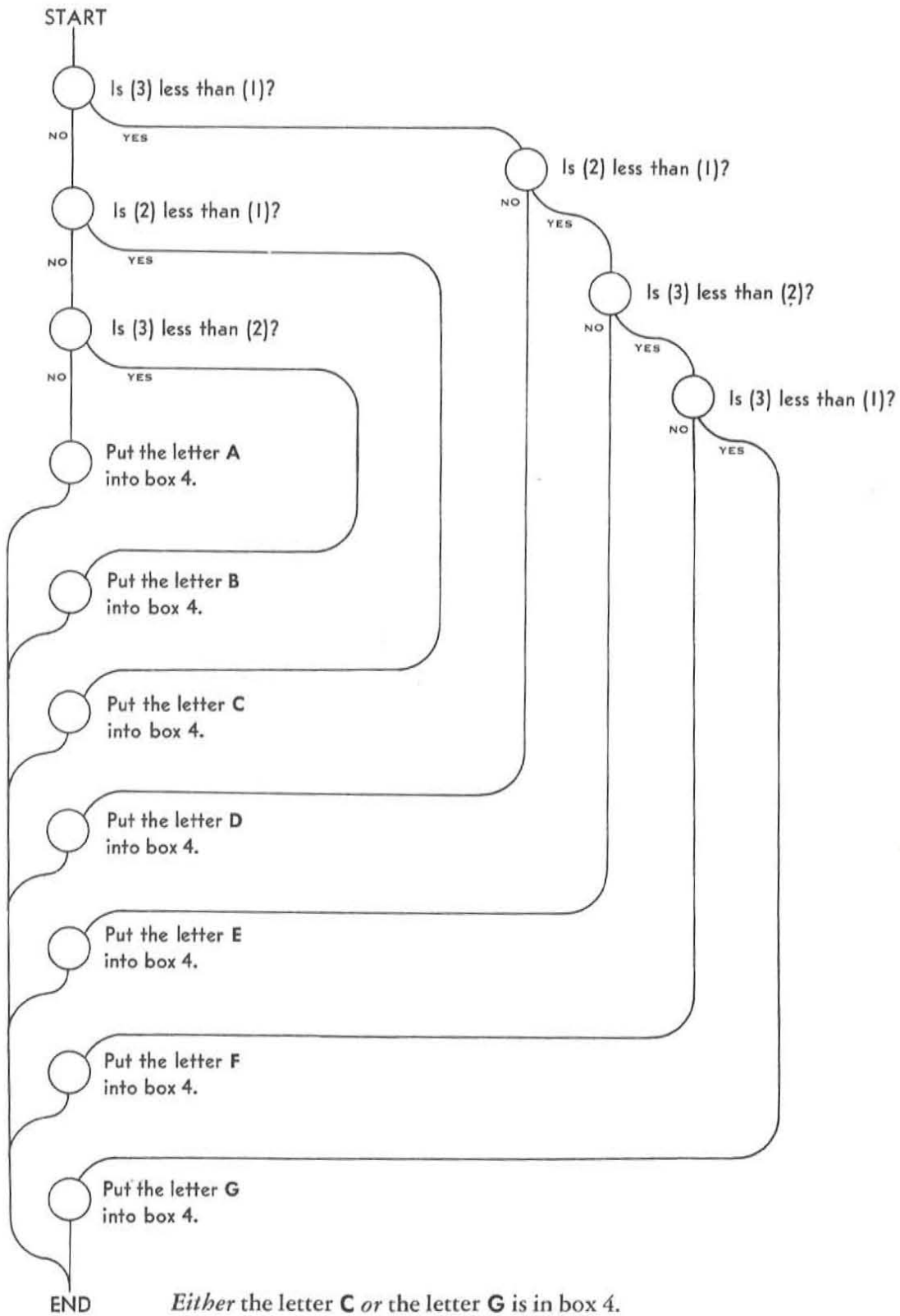
In each of the following problems, no two boxes contain the same number.

TURN THE PAGE, AND CONTINUE

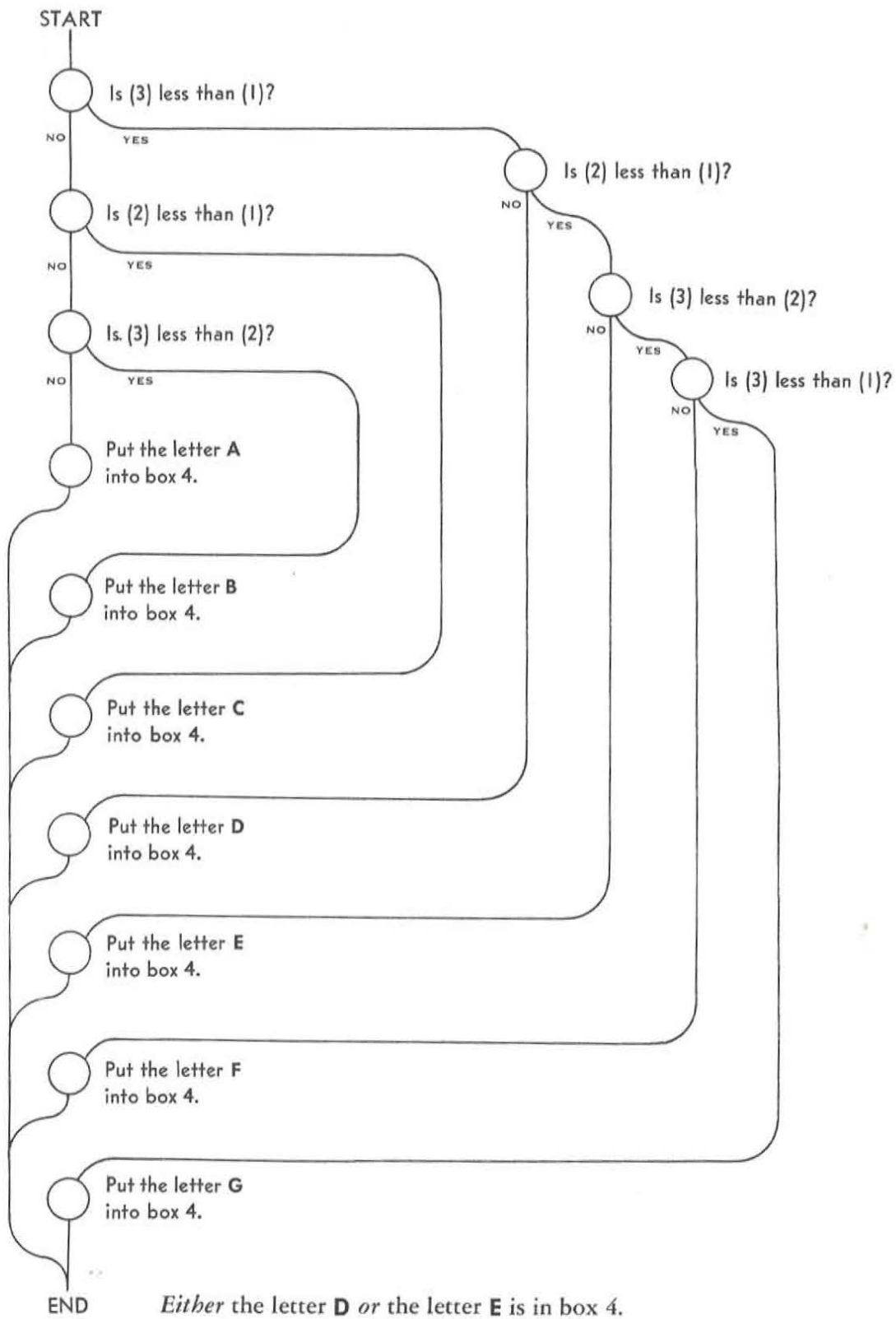


Which of the boxes 1, 2, 3, contains the largest number? _____
 the smallest number? _____

9



Which of the boxes 1, 2, 3 cannot possibly contain the largest number? _____
the smallest number? _____



Which of the boxes 1, 2, 3 *cannot possibly* contain the largest number? _____
 the smallest number? _____

READ THESE DIRECTIONS

In the following problem, you must grasp the significance of the individual steps in the flow-chart, and correct an error which has been deliberately placed there.

In the following problem, no two boxes contain the same number.

TURN THE PAGE, AND CONTINUE

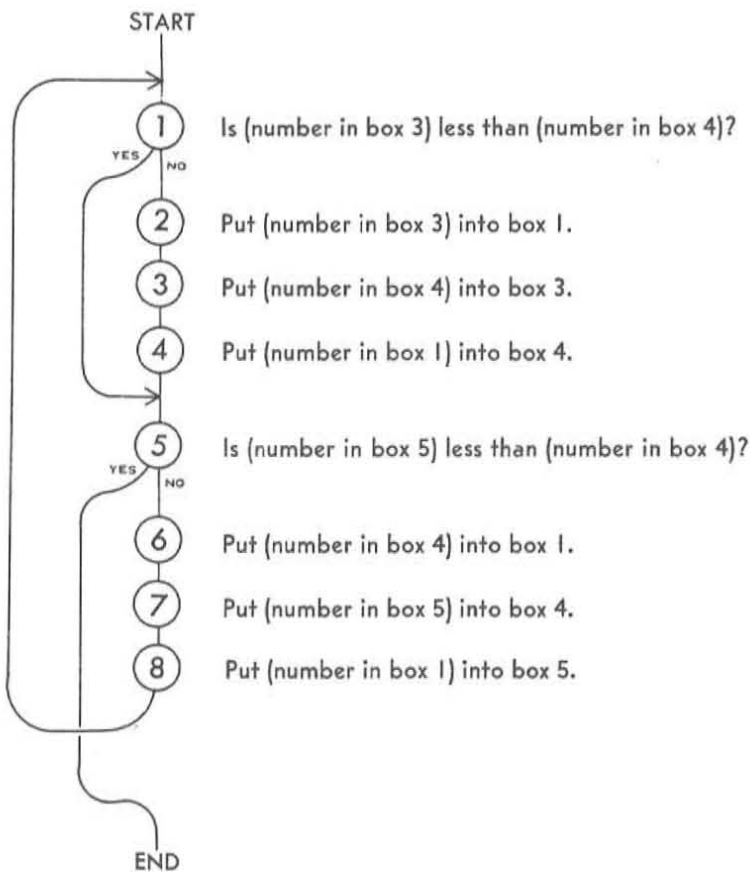
11

The object of the following flow-chart is to rearrange the numbers in boxes 3, 4, and 5 in such a fashion that, at the end:

- Box 3 will always contain the smallest number;
- Box 5 will always contain the largest number.

However, this flow-chart is incorrect. As it stands it will not accomplish the desired purpose.

Which one Instruction must be changed to correct the flow-chart?



In order to correct this flow-chart, we must change Instruction No. _____
So that the first box-number mentioned in it is box number _____
and the second box-number mentioned in it is box number _____