

Date: _____

Problem 12 : Die Hard 3 : Rescue the Bomb

Understood : Have to get 4 liters of water using 5L and 3L jugs.

Solution: Empty 5L jug pour 3L water in it. Fill again 3L jug and pour 2L water in 5L jug. Now empty 5L jug and pour 1L water left in 3L jug. Fill 3L jug again and pour in 5L jug to make 4L water.

Pseudocode :

5Ljug = 0

3Ljug = 3

while 5Ljug \neq 4

~~pour-amount = 3Ljug - 5Ljug~~

~~5Ljug = 5Ljug + ~~3Ljug~~ pour-amount~~

~~3Ljug = 3Ljug - pour-amount~~

~~3Ljug = 3~~

- pour-amount = min(5Ljug, 3 - 3Ljug)

5Ljug = 5Ljug + pour-amount

3Ljug = 3Ljug + pour-amount

IF 3Ljug == 3 THEN

3Ljug = 0

ELSE IF 5Ljug == 0

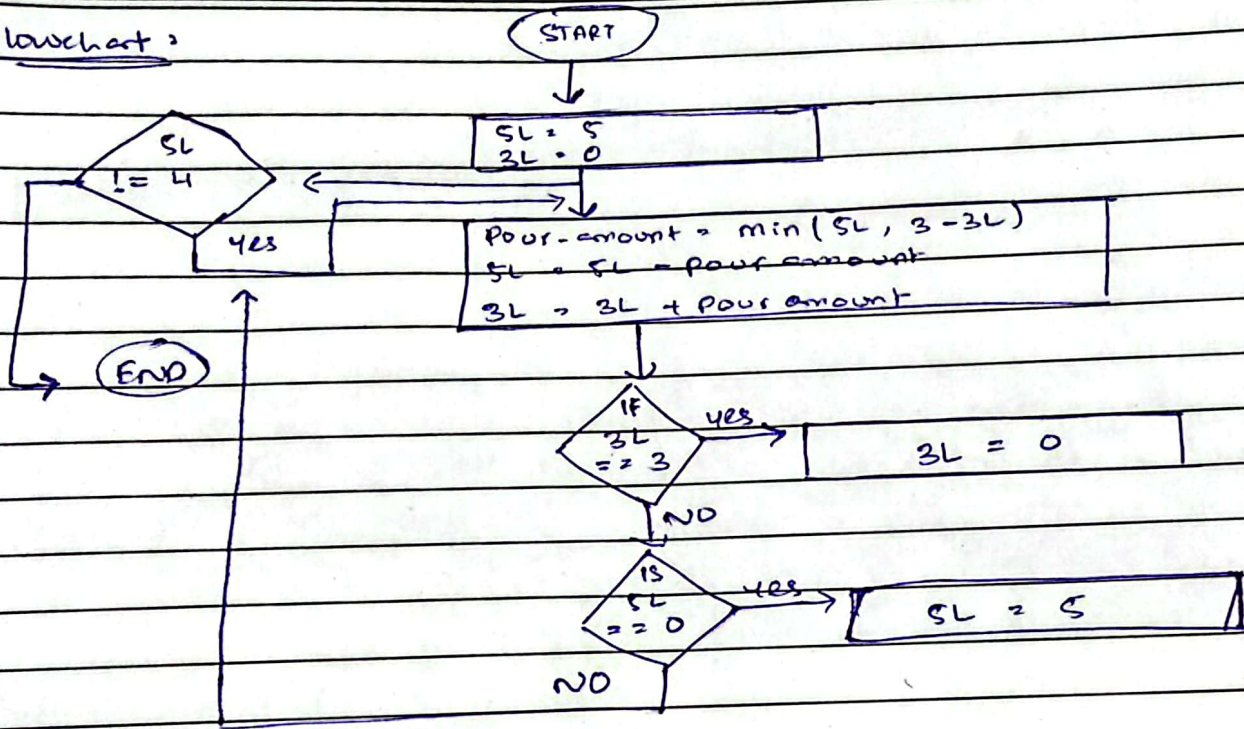
5Ljug = 5

END IF

END WHILE

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Flowchart :



IPD Chart :

INPUT	Process	OUTPUT
- Input the available space in both jugs	- check for min of from SL jug and 3L jug. pour water from SL jug to 3L jug until SL jug has 4L water left.	- 4L water in SL jug, bomb diffused

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