

# AI LAB Test-1

Naman Agarwal  
1Bm18C057

# The sample set.

	<u>4L</u>	<u>3L</u>
Case 1	0	0
Case 2 add to 4L	4	0
Case 3 add to 3L	0	3
Case 4 transfer from 3L to 4L and no overflow	$x+3$	0
Case 5 transfer from 4L to 3L	$(x-y)$	$2+y$
Case 6 transfer from 3L to 4L with overflow.	4	$(2-y)$
Case 7 Fill 3L to top.		

→ initially present.

the water left.

→ already present.

→ left over.

Agarwal

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Naman Agarwal  
IBM18CS057.

```
def fill (cup1, cup2, Ann[]):
    if cup1 == 2: return true.
    if cup1 cup1 != 4:
        if cup1 temp = cup1
        cup1 = cup1 4.
        if fill fill (cup1, cup2, Ann[]):
            Ann.append ("fill cup1")
            cup1 = temp.
    if cup2 != 3:
        temp = cup2
        cup2 = 3
        if fill (cup1, cup2, Ann[]):
            Ann.append ("fill cup2")
            cup2 = temp.
    if cup1 != 4:
        temp2 = cup2
        temp = cup1
        cup1 = cup1 + cup2 cup2
        if cup1 > 4:
            cup2 = cup1 cup1 - 4
            cup1 = 4
        if fill (cup1, cup2, Ann[]):
            Ann.append ("from 2 to 1")
            cup2 = temp2
            cup1 = temp.
```

N. Agarwal

AI LAB - 1

Namern Agarwal  
18M18CE057

if  $\text{cup } 2 \neq 3 :$

$\text{temp} = \text{cup } 2$   
 $\text{temp} = \text{cup } 1$

$\text{cup } 2 = 3$

$\text{cup } 1 = \text{cup } 1 - (3 - \text{temp})$

if  $\&$  fill (cup1, cup2, Am[])  
Am.append(" from 1 to 2")

$\text{cup } 2 = \text{temp}$

$\text{cup } 1 = \text{temp}$

R. Agarwal