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In [3]: n1=int(input("Enter the capacity of first jug: "))  
n2=int(input("Enter the capacity of second jug: "))  
n3=int(input("In which jug to be filled :"))  
n4=int(input("How much to be filled: "))
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Enter the capacity of first jug: 5  
Enter the capacity of second jug: 7  
In which jug to be filled :2  
How much to be filled: 2
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In [4]: class Waterjug:
    def __init__(self, am, bm, a, b, g):
        self.a_max = am;
        self.b_max = bm;
        self.a = a;
        self.b = b;
        self.goal = g;
    def fillA(self):
        self.a = self.a_max;
        print ('(', self.a, ',', self.b, ')')
    def fillB(self):
        self.b = self.b_max;
        print ('(', self.a, ',', self.b, ')')
    def emptyA(self):
        self.a = 0;
        print ('(', self.a, ',', self.b, ')')
    def emptyB(self):
        self.b = 0;
        print ('(', self.a, ',', self.b, ')')
    def transferAtoB(self):
        while (True):
            self.a = self.a - 1
            self.b = self.b + 1
            if (self.a == 0 or self.b == self.b_max):
                break
        print ('(', self.a, ',', self.b, ')')
    def main(self):
        while (True):
            if (self.a == self.goal or self.b == self.goal):
                break
            if (self.a == 0):
                self.fillA()
            elif (self.a > 0 and self.b != self.b_max):
                self.transferAtoB()
            elif (self.a > 0 and self.b == self.b_max):
                self.emptyB()
    def pour(jug1, jug2):
        max1, max2, fill = n1, n2, n4
        print("%d\t%d" % (jug1, jug2))
        if jug2 is fill:
            return
        elif jug2 is max2:
            pour(0, jug1)
        elif jug1 != 0 and jug2 is 0:
            pour(0, jug1)
        elif jug1 is fill:
            pour(jug1, 0)
        elif jug1 < max1:
            pour(max1, jug2)
        elif jug1 < (max2-jug2):
            pour(0, (jug1+jug2))
        else:
            pour(jug1-(max2-jug2), (max2-jug2)+jug2)
print("JUG1\tJUG2")
if(n3==2):

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    pour(0, 0)
elif(n3==1):
    print ('(', '0', ',', '0', ')')
waterjug=Waterjug(n1,n2,0,0,n4);
waterjug.main();
```

JUG1	JUG2
0	0
5	0
0	5
5	5
3	7
0	3
5	3
1	7
0	1
5	1
0	6
5	6
4	7
0	4
5	4
2	7
0	2

In []: