

Assignment 4: Water Jug

Code:

```
x = 0

y = 0

m = 4

n = 3

print("Initial state = (0,0)")

print("Capacities = (4,3)")

print("Goal state = (2,y)")

while x != 2:

    r = int(input("Enter rule"))

    if (r == 1):

        x = m

    elif (r == 2):

        y = n

    elif (r == 3):

        x = 0

    elif (r == 4):

        y = 0

    elif (r == 5):

        t = n - y

        y = n

        x -= t

    elif (r == 6):
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    t = m - x

    x = m

    y -= t

elif (r == 7):

    y += x

    x = 0

elif (r == 8):

    x += y

    y = 0

print(x, y)

```

Output:

Initial state = (0,0)

Capacities = (4,3)

Goal state = (2,y)

Enter rule2

0 3

Enter rule8

3 0

Enter rule2

3 3

Enter rule6

4 2

Enter rule3

0 2

Enter rule8

2 0