

water jug

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1 program no.-2

1.1 Description

You are given an m liter jug and a n liter jug. Both the jugs are initially empty. The jugs don't have markings to allow measuring smaller quantities. You have to use the jugs to measure d liters of water where d is less than n .

(X, Y) corresponds to a state where X refers to the amount of water in Jug1 and Y refers to the amount of water in Jug2. Determine the path from the initial state (x_i, y_i) to the final state (x_f, y_f) , where (x_i, y_i) is $(0, 0)$ which indicates both Jugs are initially empty and (x_f, y_f) indicates a state which could be $(0, d)$ or $(d, 0)$.

1.2 solution

Gallons in the 4-gallon jug	Gallons in the 3-gallon jug	Rule applied
0	0	2
0	3	9
3	0	2
3	3	7
4	2	5 or 12
0	2	9 or 11
2	0	--

Figure 1: Caption

2 code

