

Assignment 10

Design & Analysis of Algorithms Lab

April 5, 2022

1. Given three bowls: X, Y and Z liters capacity ($X > Y > Z$). Initially, the X-liter bowl is full, and others are empty. The allowable operation is to pour from a bowl A to another bowl B unless B is full or A is empty, whichever is early. How do the pouring operations make the quantities of x, y, and z liters.

Write a C/C++ code to show the steps from (X, 0, 0) to (x, y, z).

Input:

X = 8 Y = 5 Z = 3

x = 4 y = 4 z = 0

Output:

8 0 0

3 5 0

3 2 3

6 2 0

6 0 2

1 5 2

1 4 3

4 4 0

Submission Instruction:

File Name: A10_RollNo.c/cpp

Email to: *pds2016autumn@gmail.com* with **subject line:** A10_RollNo