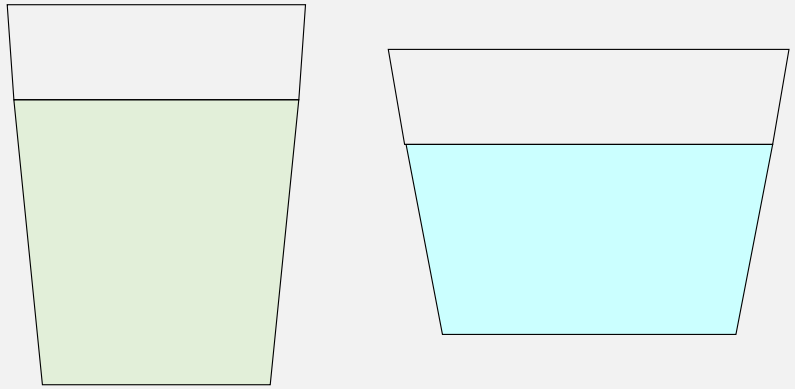
SWAPPING VARIABLES

A common sub-problem

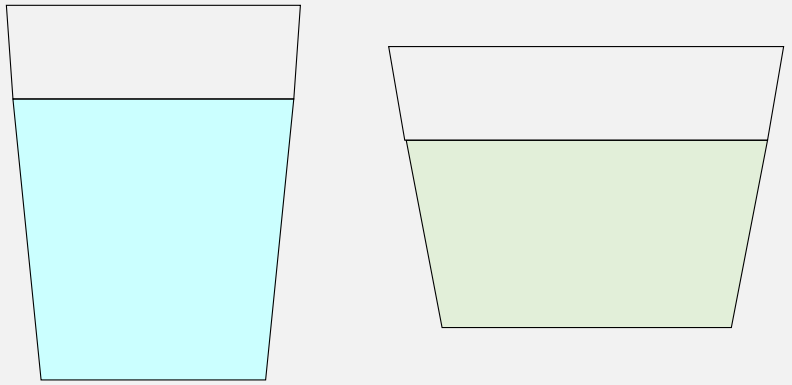
Delroy A. Brinkerhoff

THE PROBLEM

INITIAL STATE

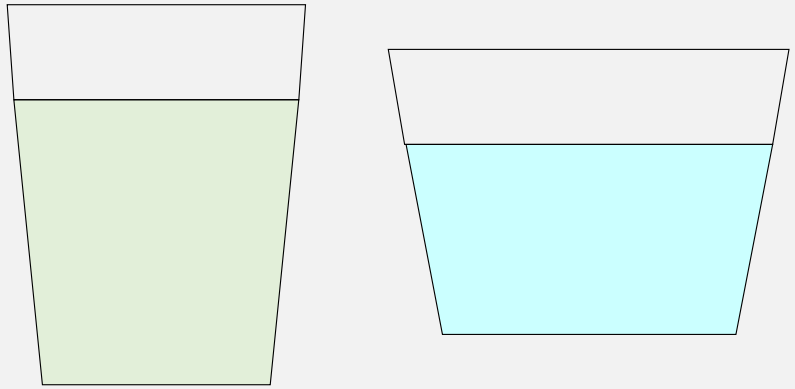


GOAL (SOLUTION) STATE



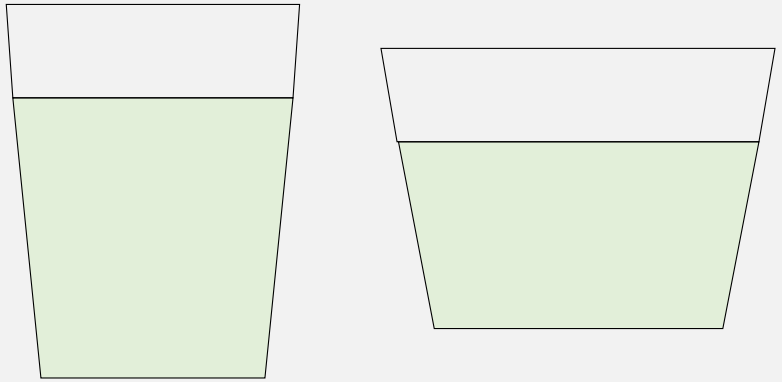
A FAILED SOLUTION

INITIAL STATE



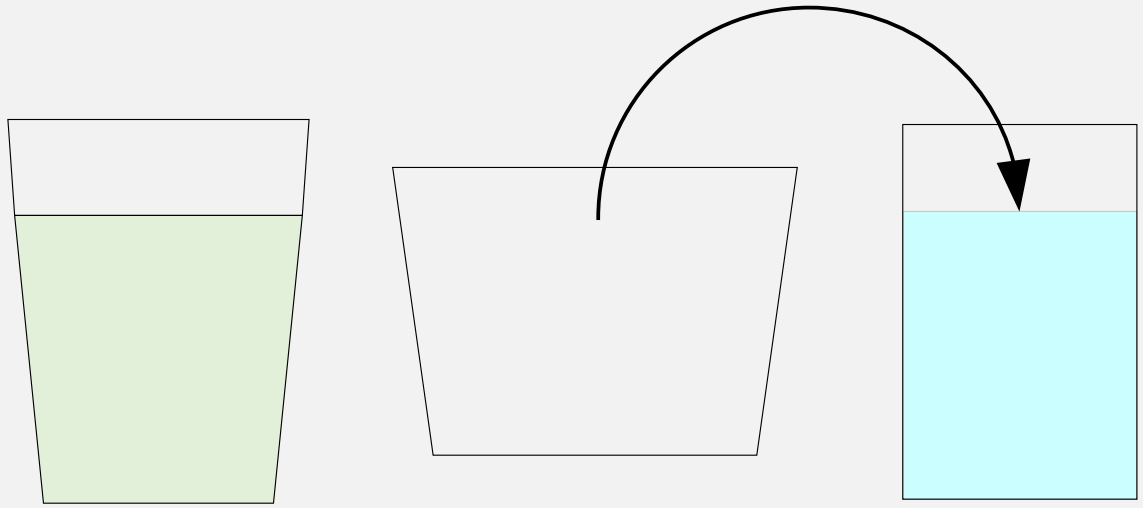
T W

GOAL (SOLUTION) STATE

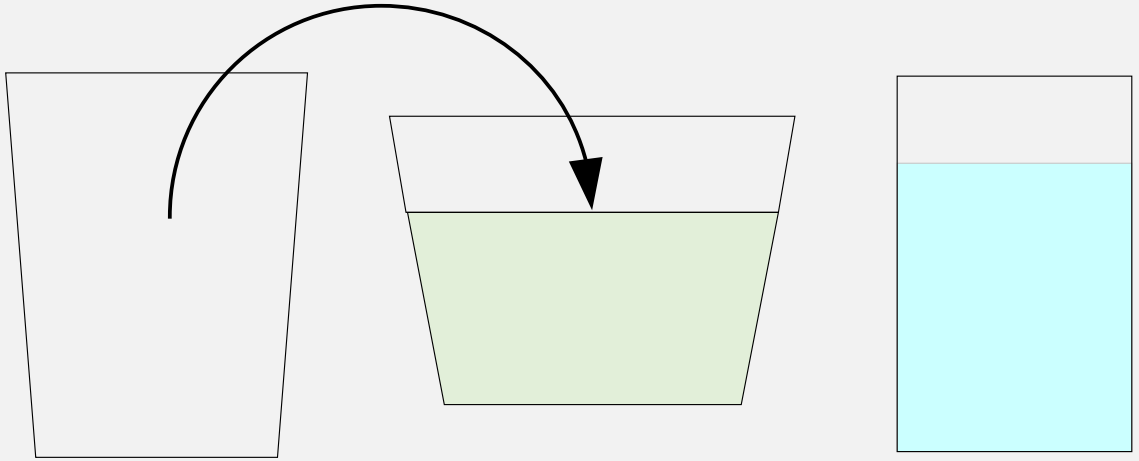


W = T
T = W

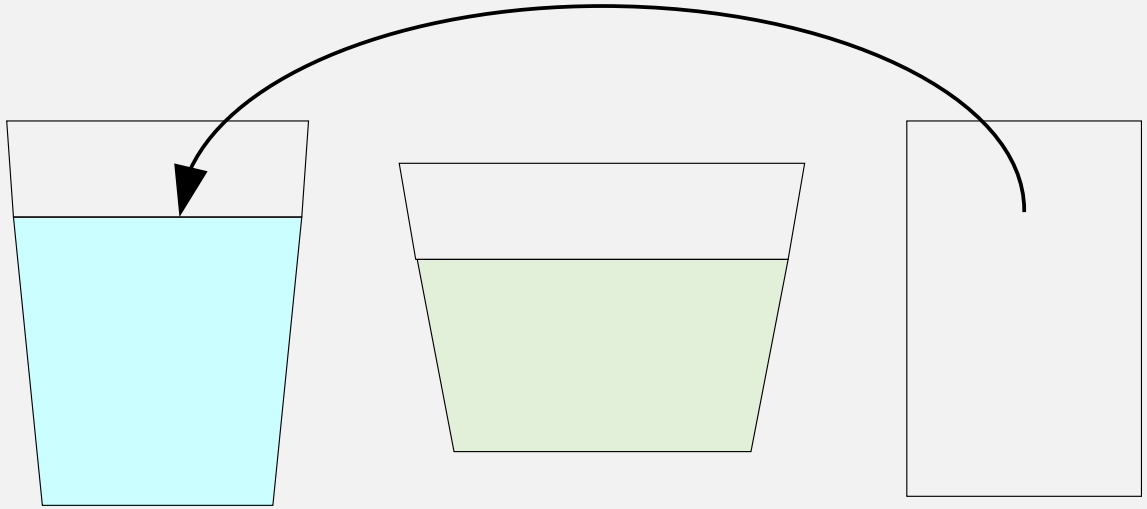
STEP 1



STEP 2



STEP 3



SWAPPING VARIABLES: A PROGRAMMING SOLUTION

SETUP

```
T  x1 = …;
T  x2 = …;
```

SOLUTION

```
T  temp = x1;      // step 1
x1 = x2;           // step 2
x2 = temp;         // step 3
```