Hard Exercise – Rubix Cube Solver

# Challenge

A rubix cube has 6 sides: Front (F), Back (B), Up (U), Down (D), Left (L), Right (R).

Given a rubix cube configuration, have a series of actions run until a solved rubix cube is outputted.

Actions:

* *F* (Front): the side currently facing the solver
* *B* (Back): the side opposite the front
* *U* (Up): the side above or on top of the front side
* *D* (Down): the side opposite the top, underneath the Cube
* *L* (Left): the side directly to the left of the front
* *R* (Right): the side directly to the right of the front
* *x* (rotate): rotate the entire Cube on *R*
* *y* (rotate): rotate the entire Cube on *U*
* *z* (rotate): rotate the entire Cube on *F*
* A number after the letter indicated the number of turns. F2 indicates turn the front side two times clockwise.

# Example

Input:

Front (0):

444

003

005

Back (1):

555

112

114

Up(2):

220

220

440

Down(3):

331

331

551

Left(4):

112

444

333

Right(5):

003

555

222

Output:

U1

R3

F3