

Cube Moves

The six faces of the Cube are called:

U	Up face
D	Down face
F	Front face
B	Back face
L	Left face
R	Right face

as shown on the screen.

Each face can be turned clockwise or anti-clockwise by typing in the letter-name, or the letter name in conjunction with the SHIFT key:

For example,

U (RETURN)

turns the Up face 90 degrees clockwise, and

SHIFT U (RETURN)

turns the Up face 90 degrees anti-clockwise.

Clockwise moves are recorded in white capital letters.

Anti-clockwise moves are recorded in red small letters.

The whole cube can be turned on the axis of a named face using the letter-name with the CTRL key:

For example,

CTRL U (RETURN)

turns the cube 90 degrees about the Up face axis.

Cube turns about any axis are recorded in cyan capital letters.

Scrambling the cube

X (RETURN) gives one random move. To scramble the Cube type in X followed by the number of shuffling moves required, for example,

X66 (RETURN)

Starting a new cube

Press ESCAPE to start a new cube.

Drawing your own Cube

To enter your own Cube position on the screen type E (RETRN) and colour in the cube as follows:

Choose which colour the square under the flashing cursor should be, and then

type 1 for RED	4 for BLUE
2 for GREEN	5 for MAGENTA
3 for YELLOW	6 for WHITE

The cursor will show you which coloured square on the cube is to be coloured in next. The program will not let you colour more than nine squares in the same colour, and you can use DELETE to edit the Cube you have drawn. In this way you can colour the cube on the screen to match your own scrambled cube.

Solving the Cube

If you want the computer to solve the cube on the screen type S (RETURN) and then press the Space Bar. The computer will solve the Cube in stages; it will stop after a few moves (and bleep) and wait for you to press the Space Bar to continue. The number of moves made is recorded on the screen.

Notation

Clockwise moves are recorded in white capital letters. Anti-clockwise moves are recorded in red small letters. Cube turns about any axis are recorded in cyan capital letters.

FF in white or ff in red are counted as single moves. F in cyan is not counted as a move at all.

The yellow (and > signs mark the beginning and end of a sequence of moves made by the computer.

Illegal cubes

If a cube has an illegal combination the computer will recognise it to be illegal near the end of the solution. There is then a pause in the program while you are told how to correct the cube (for example, 'Turn FU edge over') and then the computer will proceed to solve it.

On the other hand, it does NOT recognise illegal pieces (a rotated corner or an upturned edge). It will try to solve a cube containing an illegal piece, and will stop after a few moves. In this case press ESCAPE or BREAK and restart the program with a 'legal' cube.