Rubik's Cube Notation
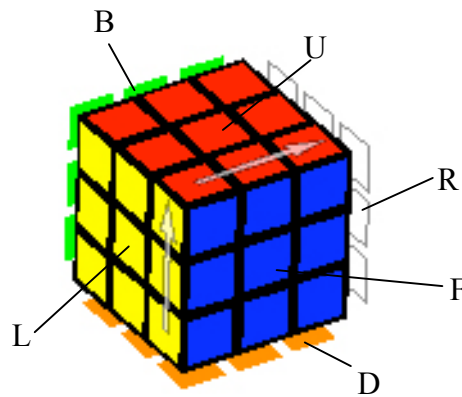See also: http://lar5.com/cube/term.html and http://www.cubefreak.net/notation.html
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I use two notations for Rubik's cubes, standard and pronounceable. Standard is for writing and communicating with others, pronounceable is for memorizing algorithms verbally (Say the letters as words).

Cubie/Cubelet: The little pieces of the Rubik's cube

Face: One 3x3 side of a cube.

Layer: A face plus the edges of the cubies. In the example below, the top layer consists of all the cubies containing red (so there is also yellow, blue, white, and green in the top layer).

Face Names: Each face is labeled by a single letter (shown below). Note: imagine the blue face is facing you.

Annotating Twists:
Standard Notation:
When you see the name of a face in an algorithm, it means that you should twist that face 90° clockwise as if you are facing it. The arrows in the diagram show the twist F. When you see an apostrophe, after the name of a face, it means to twist it 90° counterclockwise. Ex. F' (pronounced F prime) means twist the front face counterclockwise. When you see a face name followed by the number 2, it means twist a face 180°. Ex. F2 means give the front face one half twist.

Pronounceable Notation:
I use this to memorize my algorithms more quickly. You simply have to remember the "sentence" formed by the sounds of the letters. The only differences between this and standard are that we replace the apostrophe with a lower case i (ex. Fi means F') and that we just repeat a letter for a half-twist (ex. Fi Fi means F2).

Algorithm Terminology:

Reverse/Inverse of a given algorithm: The sequence of moves that undoes it. Found by following steps backwards and doing the opposite of each move.

Mirror: the mirror image of on algorithm. Found by switching L with R and inverting all twists.

Note: when following an algorithm, leave the cube in the same orientation in front of you for its duration.