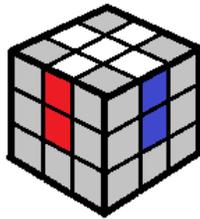
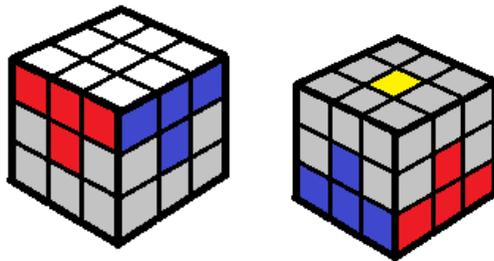


Rubik's Cube Solve Sheet

Hold the cube with the white center piece up. The goal is to form a white cross while matching with the side center pieces. Locate a edge piece with a white face and place in the bottom layer with white face down preferred. Rotate bottom layer until you match with the other color's center piece, rotate the left, right, front or rear layers to match the white center piece. Do the same for the rest of the three edge pieces if possible. For the situation where the placement is good but the other color meets the white center piece, perform this algorithm: $R' U F' U'$. (Affected piece must be on the right). You should now have a white cross on top.



The goal is to have a solid white top with the color matching of the top layer. Orient the cube and find a corner piece that has white side on the down face layer on the right side on the front plane if possible. Keep that orientation and perform this algorithm: $R' D' R D$. For the situation for a white corner piece on top layer oriented incorrectly, use $R' D' R$. One may need to repeat algorithm several times to get a white top face.

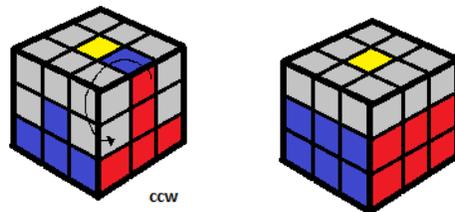


The goal is to have solid matching middle layer. **The white face faces down.** Rotate top layer until you match edge piece with a center piece but it shouldn't have a yellow color. Note the top color, it should match the left or right side face color.

If on the left, we use the counter-clockwise algorithm: $U' L' U L U F U' F'$.

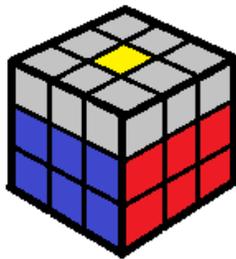
If on the right, we use the clockwise algorithm: $U R U' R' U' F' U F$.

You should see progress. Keep repeating until the second layer is solid. If you should find that all the edge pieces have yellow in them, just run one the algorithms arbitrarily and that should clear it up. Keep repeating until solid.

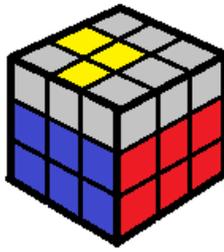


ccw

The goal is to have a yellow cross on top. If you already have a yellow cross than skip this step. See what state you have. State #1 is a yellow center piece only. State #2 has more than one yellow piece that looks like anything but in the likeness of a line and can be described as crooked. State #3 looks like a yellow line. Perform algorithm according to state.



State #1



State #2



State #3

State #1 and #2: $F U R U' R' F'$ State #2 cube oriented with little or no yellow on front plane

State #3: $F R U R' U' F'$ Cube is oriented with yellow horizontal line

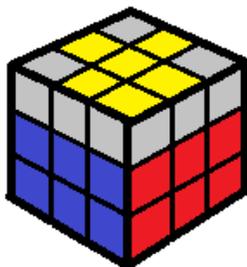
Keep repeating until you have a yellow cross; if you have extra yellow, that is OK.



The goal is to have a solid yellow top face. Look for yellow corner pieces on the Upper layer. Orient the cube so the yellow sides show on the left. Perform this algorithm:

$R U R' U R 2UR'$

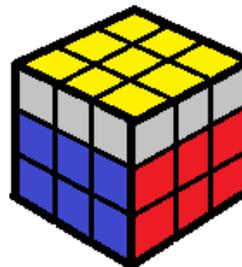
Keep repeating until you have a solid yellow top.



On the left

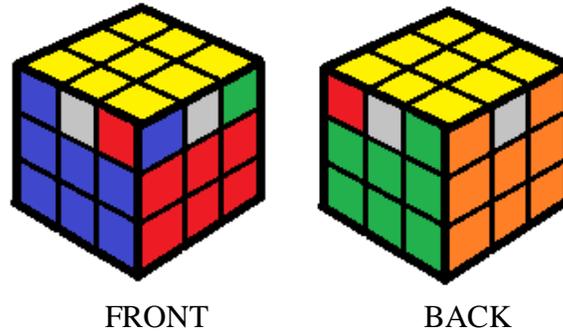


On the left

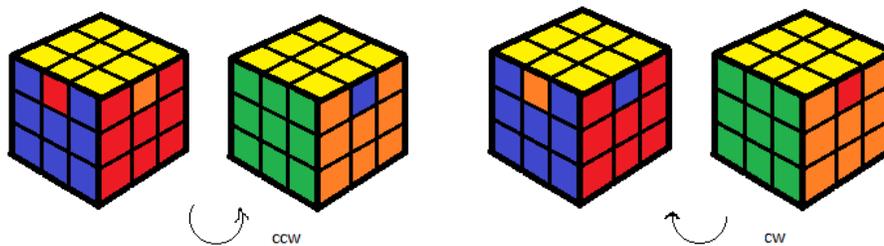


Goal

The goal is to match the yellow corner pieces. Rotate the top layer to match two corners. If you have a match on adjacent corners, orient the cube so they are back faced. If you have a match on diagonal corners, don't worry about it; just perform the following algorithm:



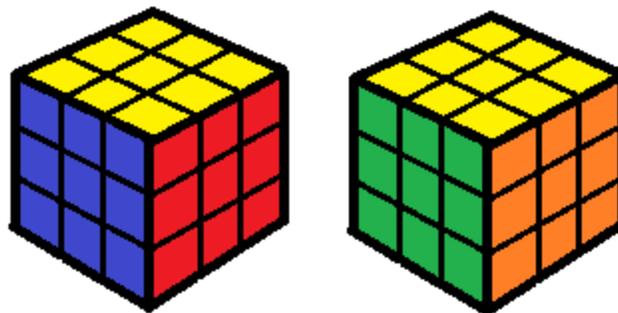
$R' F R' 2B R F' R' 2B 2R U'$ Same algorithm is used for adjacent corners. Perform algorithm twice with the case of the diagonal match and make a match on the adjacent corners after the first run and orient it back faced for the second run.



The next step is to align the yellow edge pieces. Look at the upper layer and see if you need to rotate clockwise or counter-clockwise. If you have a matched edge piece already, orient the cube so the matched edge is in the back. If you are not sure which rotation to use, use clockwise.

Clockwise: **$2F U L R' 2F L' R U 2F$**

Counter-clockwise: **$2F U' L R' 2F L' R U' 2F$**



Goal