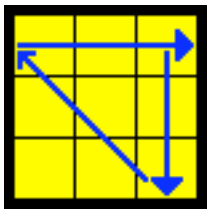
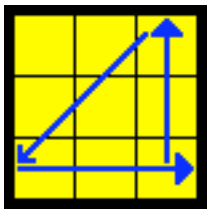


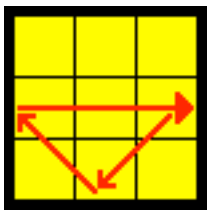
x [(R' U R') D2] [(R U' R') D2] R2

The algorithm has a little bit of a symmetry to it. I have a very weird way to memorize this algorithm tracking the two corners in UBR and UFR around the cube as I do it. But I know that many of my friends do it differently. Find what suits you best,



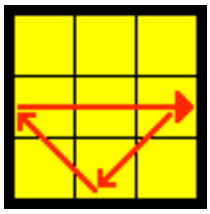
x' [(R U' R) D2] [(R' U R) D2] R2

This is the exact same type of motion you do in A(a). If you memorized it by motions instead of notation, you should be able to do this one without too many



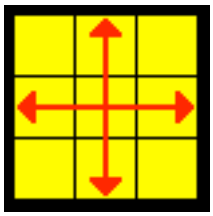
R U'] [R U] [R U] [R U'] R' U' R2

Note how the algorithm is basically always R and then U' U U U' in that symmetrical order accompanying the R, and lastly R' and fix up rest by aligning pieces.



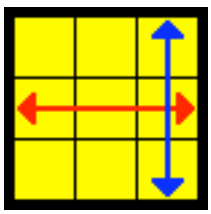
R2 U [R U R' U'] (R' U') (R' U R')

The way I remember it: R2 U, then the RUR'U' trigger, then the last two letters of the RUR'U' trigger, then do R' and fix up rest by aligning pieces and putting them to their right positions.



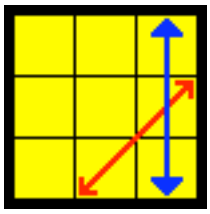
M2 U M2 U2 M2 U M2

A very easy to remember algorithm. Note how the M2's always alternate, and in between you simply have just U, U2, U



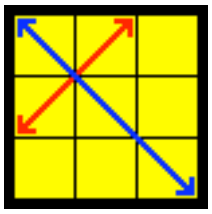
R U R' U'] [R' F] [R2 U' R'] U' [R U R' F']

I find it easy to learn this algorithm by tracking F2L pairs around the cube.RUR'U' takes out a pair. R'F hides it and takes the other pair out to the top layer. R2U'R' aligns this pair with the whites and hides that pair. Now all the pairs are hidden from the top layer. Now we do U' on the Top Layer. Finally RUR'F' takes the second pair out and aligns it with the whites again, and restores the First Two Layers.



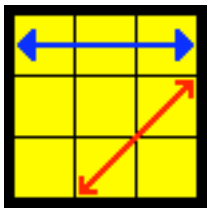
R U R' F'] {[R U R' U'] [R' F] [R2 U' R'] U'}

Notice that this is EXACTLY the same algorithm as the one above but the RUR'F' from the end was now moved to the beginning! So just do RUR'F' and then start doing the T permutation (above) until you see that the cube is solved!



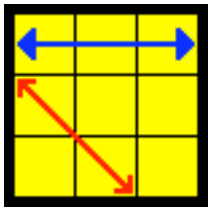
F R U' R' U' [R U R' F'] {[R U R' U'] [R' F R F']}

Again I find it helpful to see how F2L pairs move around for this algorithm. F brings an F2L pair to the top, RU'R' inserts that pair back to the middle. Now again as before, all F2L is again intact, but slightly messed up. Then U' is done as in T permutation, and then RUR'F' is AGAIN used to take that pair and insert it back where it was before. The result will leave you with an OLL, which after when you fix using the appropriate algorithm, you will be left with Ypermutation at the end. Note that the OLL is very easy: It takes one pair out to top layer, and inserts it back a different way (in



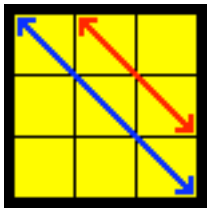
[R' U2 R U2] [R' F] [R U R' U'] [R' F'] R2 U'

Again for this one I find it easiest to track an F2L pair. Remember the first part using just notation because it is easy. After R'F you have an F2L pair on the bottom. Then you do RUR'U' trigger. Next, R'F' reconnects that F2L pair and alligns it with the whites on top, and R2U' just finishes it all up.



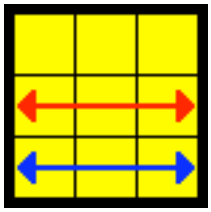
.L U2' L' U2'] [L F'] [L' U' L U] [L F] L2' U

This is just the reflection of the above. You need to do the above, but using the left hand instead of the right hand. You will be able to mirror the R permutation to your left hand after about a weeks practice of doing it with your right hand. When it becomes a little bit of muscle memory for you it should be really easy to mirror the algorithm with the left hand. So if you can't do it right away, just wait a little more and get a little more comfortable with R(b).



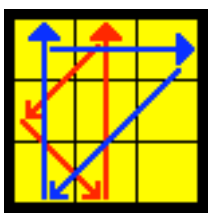
R' U R' d'] [R' F'] [R2 U' R' U] [R' F R F]

I don't really have a great way to memorize this and thats why I rated this as a hard algorithm. I kind of just did it until I had it in my muscle memory. Note how the R'FRF at the end is ALMOST the common R'FRF' trigger, but with F instead of F' at the end.



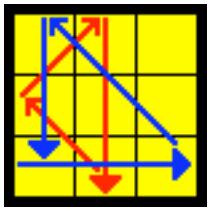
R' U2 R' d'] [R' F'] [R2 U' R' U] [R' F R U' F]

If you know V permutation, this one is REALLY easy. I highlighted the differences. There is simply one extra U, so instead of R' U R' in the beginning you have R' U U R' (or R' U2 R'), and then you have to undo that U at the end of the algorithm, so there is an extra U' that pops in from nowhere near the end of the algorithm.



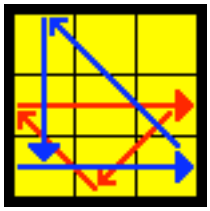
R U R'] y' R2 u' R U' R' U R' u R2

RUR' takes out a pair. Then rotate the cube, and now the fun part starts. I highleted the R rotations so that you can see the pattern better. Notice in particular how the U turns are. It is u' U' U u. It has a very nice symmetry to it. The R's I remember as follows: Since in execution I perfrom the R2 as RR (in clockwise motion), I see them as R clockwise twice, and then R counterclockwise twice, and the final R2 is just to finish up the algorithm. You are welcome to come up with better memory techniques for this



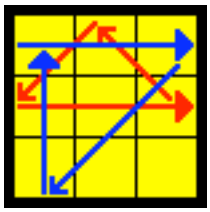
R' U' R] y R2 u R' U R U' R u' R2

This is similar. First take out the pair that is right under the aligned 2x1x1 block, as in G(d), and then rotate the cube, and do a similar pattern. See how there is a symmetry to the U's again? u U U' u'. When I execute, I do the first R2 as R' R', counterclockwise motion. So I think CCW, CCW, CW, CW, and final R2 just to fix it all up.



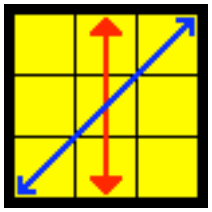
R2 u' R U' R U R' u R2 [y R U' R'

This is simply G(d) inverted. But I find it useless to remember it like that. This is like a completely new algorithm for me. Note the still distinct pattern to the U's. And also R's. Remember it as you wish. The last part yRU'R' just inserts an F2L pair once the first part is done.



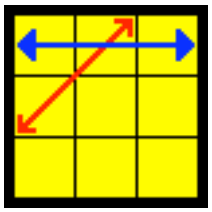
R2 u R' U R' U' R u' R2 [y' R' U R]

This is very similar to G(c). Everything just goes the other way :)



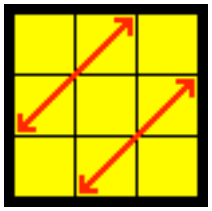
{(R' U L') U2 (R U' L)} {(R' U L') U2 (R U' L)} U'

Note how the algorithm is made up of two IDENTICAL pieces (in squigly brackets). To memorize this, track the corner in UBR. As you do R'UL', it will travel along a U on the top layer of the cube. Then do U2, and then restore yellows by doing RU'L. Then repeat that whole thing again.



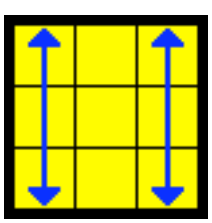
[R' U L'] [U2 R U' R' U2] [R L U']

1st part is exactly as in N(b), above. But then you do U2RU'R'U2 which I find personally very easy to remember. The last part just simply restores all yellows and I find it very easy to see it



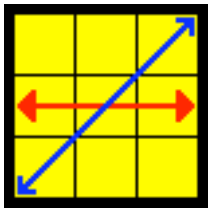
U2 [(R U R' U) (R' U' R' U) (R U' R' U') R2 U R] M2 U M2 U M' U2 M2 U2 M' U2

The first algorithm is a little harder to remember I would say, but it is faster, at least for me. The second one is easier to remember, but probably slower. I give you choice for this one :) I use the muscle memory. Somehow the algorithm has a nice flow to it.



x' [(R U' R') D (R U R')] u2 [(R' U R) D (R' U' R)]

Note how the u2 separates the two parts of the algorithm, which are both furtherer separated by D's. The two parts are also complements of each other, everything is reversed. I memorized this purely relying on



[R U' R' U] (l U) [F U' R' F'] [R U' R U] (l' U R')

Notice how the only difference in highleted green parts is the yellow R instead of R'. Also the last part l'UR' is very easy, at least for me, to see visually and need not really be remembered. You may also just simply do N(b) with your left hand, and do this permutation like that, but that is very slow.