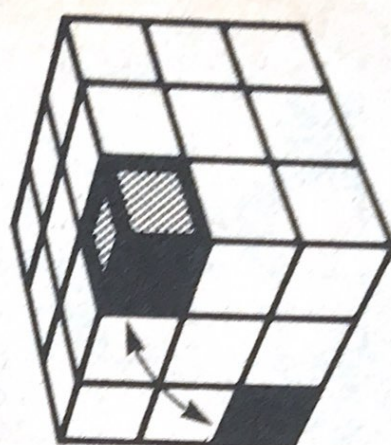


ADJACENT
EXCHANGE



DIAGONAL
EXCHANGE

- 4B.** If the 2 out-of-place corner cubes are adjacent, do the following sequence. Hold the cube so that the cubes that must be exchanged are BFL and BFR.

****Exchange BFL and BFR:**

R- B- R+ F+ B+ F- R- B+ R+ B2

Now proceed to step 4D.

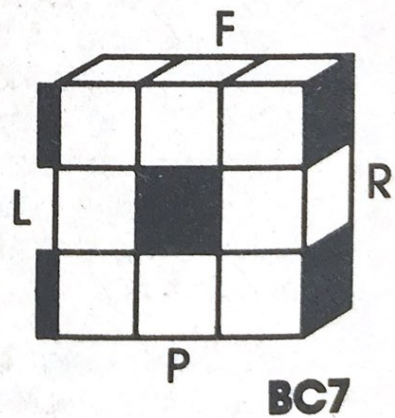
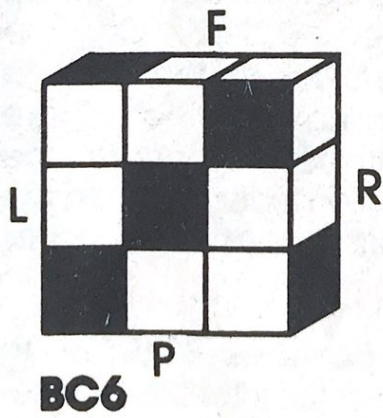
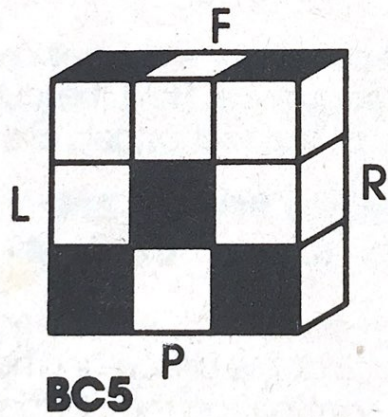
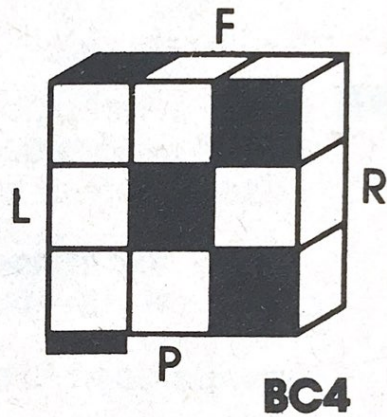
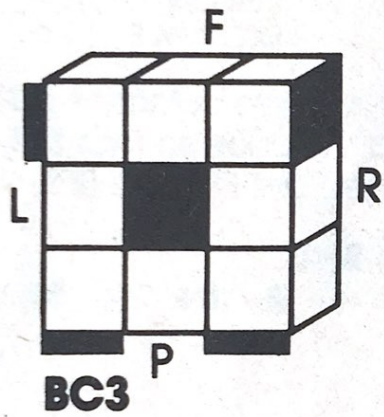
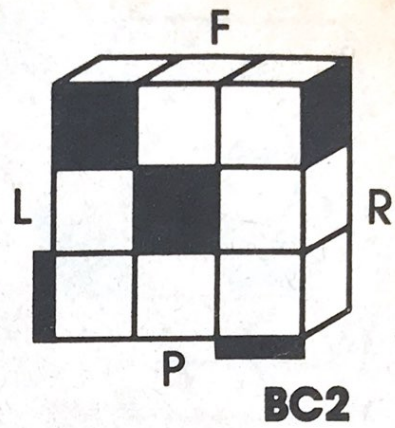
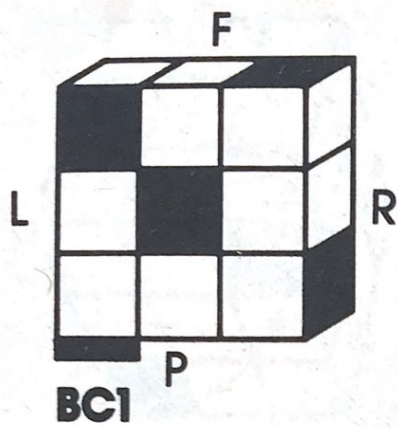
- 4C.** If the 2 out-of-place corner cubes are diagonal, do the following sequence. Hold the cube so that the cubes that must be exchanged are BFL and BPR.

****Exchange BFL and BPR:**

R- B- R+ F+ B2 F- R- B+ R+ B+

- 4D.** The 4 bottom-corner cubes are now all properly positioned. Look at the B face and hold the cube so that the color pattern on the bottom corner cubes matches one of the 7 patterns BC1-BC7. Only the bottom color is indicated in black on the patterns BC1-BC7. The only other possibility is that all are oriented correctly. Remember to ignore the bottom-edge cubes for now. If necessary, turn the entire cube in your hand until the pattern matches one of the 7.

✓ This matching of color patterns is done to determine which will be your F face for the next sequence. Make sure the T face is as always and proceed to step 4E.



THE SEVEN POSSIBLE COLOR PATTERNS ON THE BOTTOM FACE.
REMEMBER TO IGNORE THE COLORS OF THE BOTTOM EDGE CUBES.

4E. Perform the following sequence.

****Orient bottom-corner cubes:**

R- B- R+ B- R- B2 R+ B2

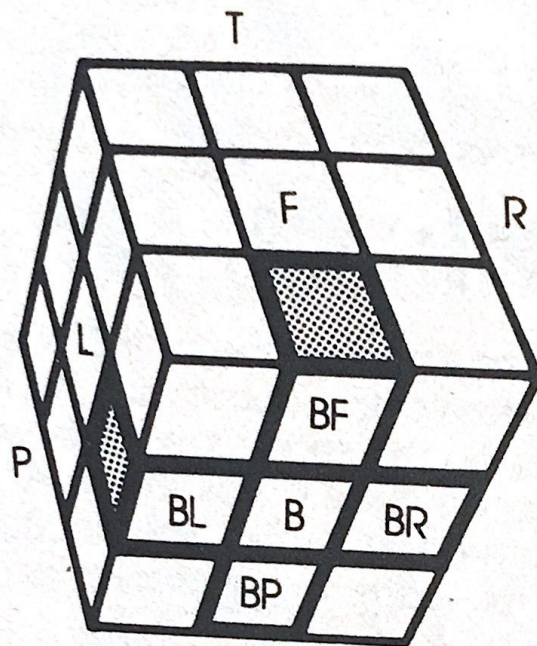
If the 4 bottom-corner cubes are not correctly oriented after performing this sequence, go back to step 4D. You may have to perform the sequence in step 4E as many as a total of 3 times to orient the bottom-corner cubes.

Error correction

Before doing the orientation sequence in step 4E, it is necessary to hold the cube correctly so that the T face is as always and the F face is as indicated in the drawings of the 7 patterns BC1-BC7. Should you hold the cube incorrectly and do this sequence, you will merely get back a different pattern of the 7 possible. Should this happen, simply match the pattern you do get to one of the 7 and try again by repeating step 4D.

If you make a mistake when positioning or orienting the bottom-corner cubes, it is possible you may end up with one of the vertical-edge cubes misplaced. Should this happen, you will have to go back to step 3, correct the error using one of the sequences in that step, and then return to step 4.

STEP 5: BOTTOM EDGES (BF, BL, BP, BR)



BOTTOM FACE

The final step is to place and orient the 4 bottom-edge cubes. First check to see how many of these 4 cubes are already correctly positioned (without regard to orientation). At this point, there will be either 4, 1, or none of these bottom-edge cubes correctly positioned.

If none are correctly positioned, go to step 5A.

If 1 is correctly positioned, go to step 5B.

If 4 are correctly positioned, go to step 5C.

The sequences (L- R+) and (L+ R-) are done repeatedly in this step. They are put into parentheses for clarity.

5A. Do the following sequence (all 11 moves). It does not matter how the cube is held as long as the T and B faces remain as before.

**** (L- R+) F+ (L+ R-) B2
(L- R+) F+ (L+ R-)**

Now there will be exactly one of the bottom-edge cubes properly positioned, although the orientation may be incorrect. At this point, go to step 5B.

- 5B.** Hold the cube so that the properly positioned bottom-edge cube is in position BF. Then do the following sequence (all 11 moves).

**“(L- R+) F+ (L+ R-) B2
(L- R+) F+ (L+ R-)**

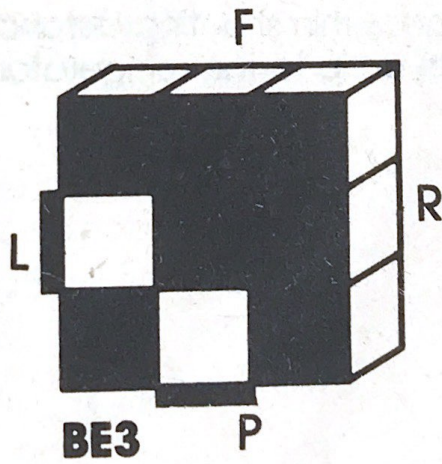
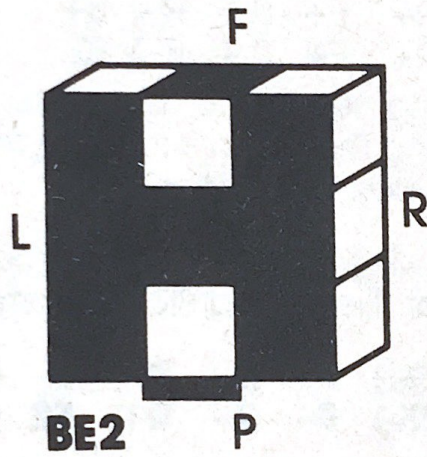
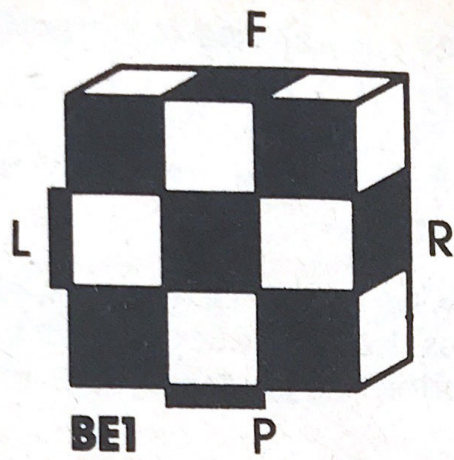
This sequence is the same as the one in step 5A. If the 4 bottom-edge cubes are still not correctly positioned, do the sequence again with the properly positioned cube in position BF. At this point, all the bottom-edge cubes will be correctly positioned. If the cube is completed, go to step 5G; otherwise, go to step 5C.

- 5C.** All 4 bottom-edge cubes are correctly positioned, and the B face will show the bottom color in one of the three patterns BE1-BE3. Hold the cube so the pattern matches. If necessary, turn the entire cube in your hand until the pattern you have matches one of the three. Be sure the T face is the same as always and the F face is as indicated in the patterns BC1-BC3.

If it is BE1, do step 5D.

If it is BE2, do step 5E.

If it is BE3, do step 5F.



THE THREE POSSIBLE COLOR PATTERNS FOR THE BOTTOM FACE

5D. Do the following sequence to complete the puzzle (all 18 moves).

(L- R+) F2 (L+ R-) B2 (L- R+) F+
(L+ R-) B2 (L- R+) F2 (L+ R-) B-

Now go to step 5G.

5E. Do the following sequence to complete the puzzle (all 30 moves). Hold the cube so that the 2 correctly oriented bottom-edge cubes are in positions BL and BR.

(L- R+) F+ (L+ R-) B+
(L- R+) F+ (L+ R-) B+
(L- R+) F2 (L+ R-) B+
(L- R+) F+ (L+ R-) B+
(L- R+) F+ (L+ R-) B2

This is a long sequence, but note that you are always turning the F and B faces in the same direction (clockwise). Go to step 5G.

5F. Do the following sequence (all 17 moves). Hold the cube so that the BF and BR are correctly oriented.

******(L- R+) F+ (L+ R-) B- (L- R+) F-
(L+ R-) B- (L- R+) F2 (L+ R-)

Then go back and do step 5B, after which the puzzle will be completed.

5G. Tell everyone within shouting distance and reward yourself with a trip to the refrigerator.