

Very general guide to solving the KAOSTIKON (= outline of design solution)

Start with the 8 corners of which there are 12 distinct legal configurations;

No matter which of these 12 one selects, there is a certain particular (the same in all cases, i.e.) edge X that can only be placed in one position relative to the corners; there is another particular edge Y where this applies in 6 of the 12 cases. Apart from X and Y there are only a couple of other edges that can be placed with certainty, and in only one or two 8-corner configurations.

If edge X is already in position then edge Y can be placed with certainty in 9 cases and also fails completely in 3 cases, so the net result to proceed with is 9 distinct legal 8-corner configurations with edges X and Y placed with certainty.

In 8 of these 9 cases the remaining edges/center squares won't work out no matter what one does (actually, in most of the 8 cases one doesn't really need to do anything, in the sense of rotating the planes of the cube: in most of the 8 cases one can fairly easily see that the remaining edges/center squares won't work out just by studying the cube from different angles...)

NB!! One should not assume that the two OOO-corners are interchangeable, so it is also possible for the remaining edges/center squares not to work out even if one has--basically--the correct 8-corner configuration...

Overall, there is only one configuration of the pieces that will produce the desired end result, i.e. there is only one solution to the problem;

NB!! If one has seemingly solved the problem except for the orientation of the center squares and it so happens that an odd number of these are rotated 90 degrees relative to the other squares on their respective faces, then one will always be left with a single center square 90 degrees off, no matter what one does...