

# Skewb

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SKEWB... it kind of sounds like a skewed cube; which sort of what it is. While the Rubik's Cube is sliced orthogonally (up&down / left&right), the Skewb is sliced diagonally. The first thing you have to learn about this creature is how to hold it without having it accidentally twist in your hand, causing the critter to fall on the ground. That happens way too many times, if you know what I mean.

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## Notation:

There are 8 corners in SKEWB, but we only need to concern ourselves with 3 of them: The bottom front-**L**eft, the bottom front-**R**ight and the bottom **B**ack-right. The first two are in the **bottom-front**, so all you have to remember is **L**eft and **R**ight. The last one is in the (bottom right)-**B**ack. I tried to avoid using this awkward corner, but just couldn't get around it any other way. On the bright side, you only have to use it once!

- **L+** ...turn the (bottom-front) **L**eft vertice **C**LOCKWISE
- **L-** ...turn the (bottom-front) **L**eft vertice **C**OUNTER-**C**LOCKWISE
- **R+** ...turn the (bottom-front) **R**ight vertice **C**LOCKWISE
- **R-** ...turn the (bottom-front) **R**ight vertice **C**OUNTER-**C**LOCKWISE
- **B+** ...turn the (bottom-right) **B**ack vertice **C**LOCKWISE (1/3 turn)

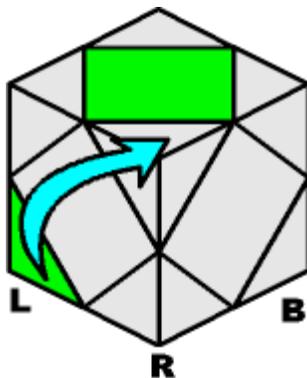
To turn a corner, touch onto its 3 neighboring sides and do that twist. It takes only a little more effort than operating a Ouija board.

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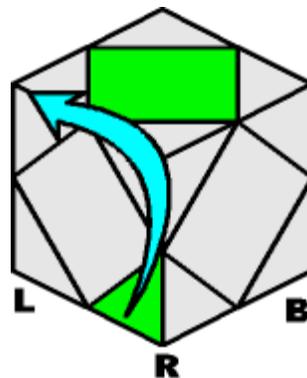
## I. Complete the Top Side:

The first step is to solve all 8 corners; we will exchange the faces later. Choose a favorite color among the 6 faces, and make that the **TOP** side for now. With the favorite-color-face on the top, move the **Top Corners** somewhere on the top side. You don't have to worry about them being in the right spot, or even whether they are inverted... just get them on the top side!

Move UP:



Move UP:



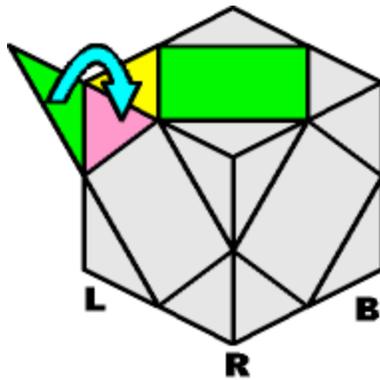
**R+**

**L-**

*Note: Do NOT move a corner-piece up if the target corner is occupied by another piece that already belongs on top. In a case like that, rotate the entire puzzle (keeping your oh-so-favorite color as the top side) until you can match a pattern that will allow you to move that piece up to an unoccupied corner.*

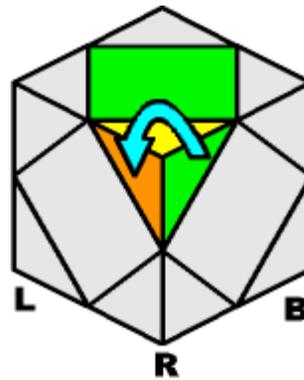
Now that all 4 top corners are on the same side, it is time to turn them around. To twist a top corner **CLOCKWISE**, rotate the entire puzzle until that corner appears on the (top-front) **LEFT**. To twist a corner **COUNTER-CLOCKWISE**, rotate the entire puzzle until that vertex appears on the (top-front) **RIGHT**. Depending on the case, use one of the following moves:

**Turn  
Clockwise:**



**L+ R+ L- R-**

**Turn  
Counter-Clockwise:**

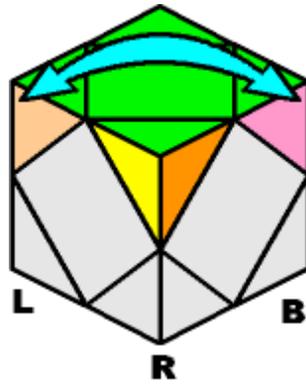


**R- L- R+ L+**

Are the 4 corners in place? Do the colors of their sides match? If not, then **SWAP** two opposite corners using the move below. It does not matter which two you swap.

*Note: This is the only time you have to use the awkward **B+** move. After this sequence is over, you can forget about it.*

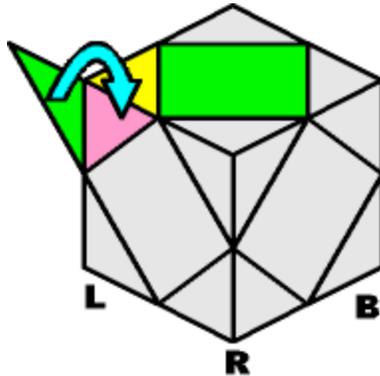
**Swap 2 Opposite  
Top Corners:**



**L+ B+ L+**

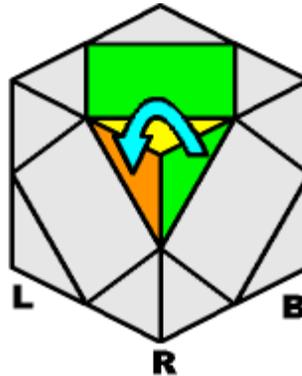
After swapping the two corners, they are discombobulated and need to be rotated again until all the top colors match. Notice that the OTHER two corners are still OK. To fix the SWAPPED corners, use the same old moves as before:

**Turn  
Clockwise:**



**L+ R+ L- R-**

**Turn  
Counter-Clockwise:**



**R- L- R+ L+**

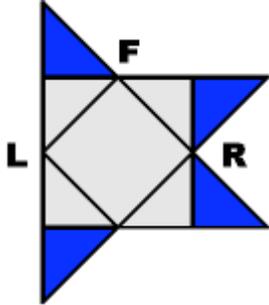
## II. Finish the Bottom Corners

Now it's time to do the bottom corners. Guess what? By some miracle, they are already in place! This is the great thing about this puzzle: *Once the top corners are in place, the bottom corners also in place.* But they still might need to be twisted on the spot, so the colors of their sides all match.

What color IS the bottom side, anyway? Well, look at the 4 bottom corners; there is only ONE color in common with all four of them, and THAT is the color of the bottom face. Believe it or not, there are only 2 possible configurations to worry about. Below are diagrams of the 2 configurations, along with a

sequence of moves to make. Make sure the patterns are EXACTLY like the diagrams below before attempting to make a single move:

**Case #1:  
No corners  
are finished**

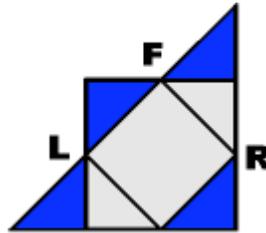


**Bottom View**

**L+ R- L+ R-  
L- R+ L- R+**

... and now the bottom corners are solved.

**Case #2:  
Two corners  
are finished**

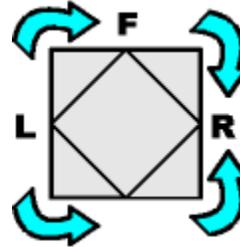


**Bottom View**

**L+ R- L+ R-  
L- R+ L- R+**

... which brings you to Case #1.

**What the move does:**



**Bottom View**

It rotates the two front-bottom corners clockwise, and the bottom-back corners counter-clockwise.

### III. Swap the Faces

The bad news is, there are many cases of swapping at this point. The good news is, you only need to memorize ONE sequence of moves for all of them. Here is the sequence:

~~~~Swapping sequence~~~~

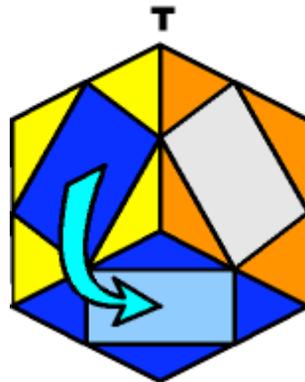
**L+ R- L- R+  
L+ R- L- R+  
L+ R- L- R+**

*What the move does:  
It swaps the front face with the bottom face,  
and swaps the left face with the right face.*

The first thing to do is try to finish at least 2 faces. The top face should already be done. If the other 5 are not in place, then:

- Hunt for the face that is suppose to go to the bottom (it should be on one of the 4 verticle sides).
- Rotate the entire puzzle so that particular face is on the front side (keeping the finished side on top).

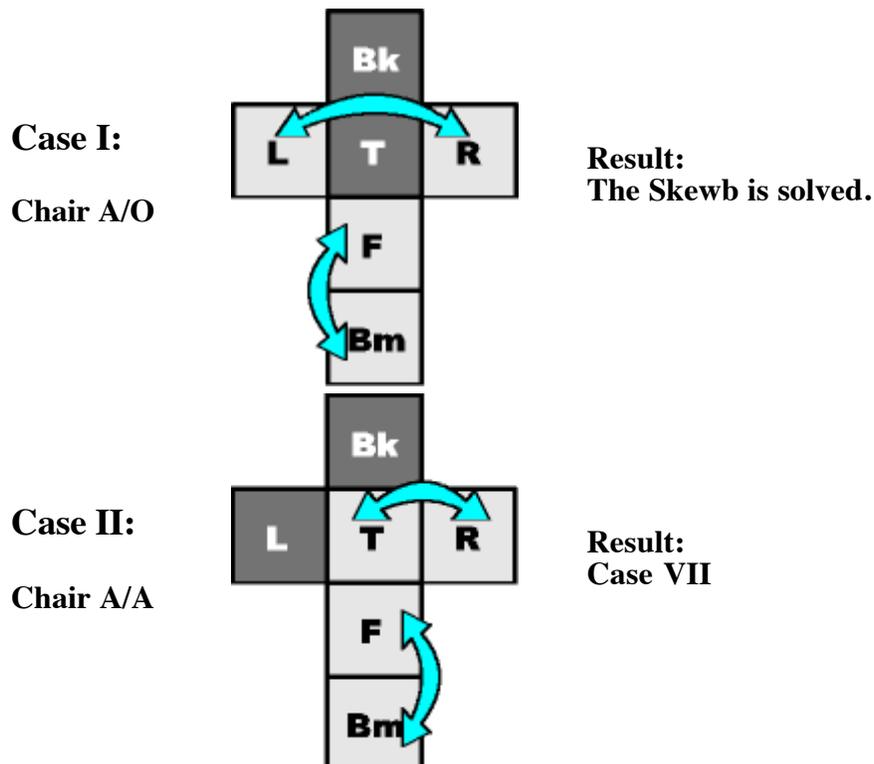
- Perform the Swapping Sequence.



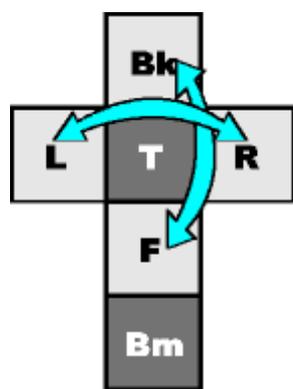
Moving the front face to the bottom side.

Now at least 2 faces are finished. From this point on, the top side loses its status as ANY side can become the top side. The important thing is that the swapping (or exchanging) pattern matches with one of the 7 remaining cases in the table diagrams.

So... rotate the enire puzzle around until the faces that need to be swapped (or exchanged) are positioned exactly as shown in the table diagrams. The left column labels the Case Number, along with an abbreviated nickname I made up. The right column is the result AFTER doing the Swapping Sequence. You may have to jump from Case to Case to solve the SKEWB, but you should only have to use the Swapping Sequence 3 times max.

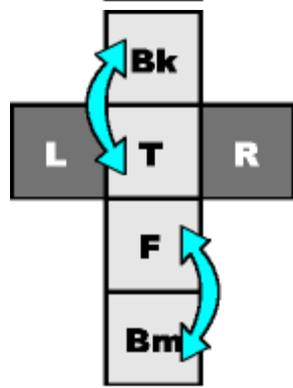


**Case III:**  
Hoop O/O



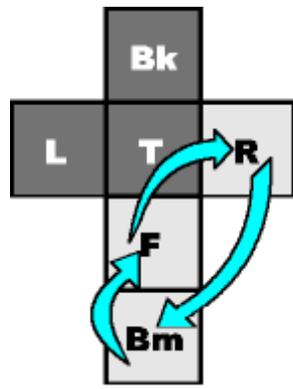
**Result:**  
Case VII

**Case IV:**  
Hoop A/A



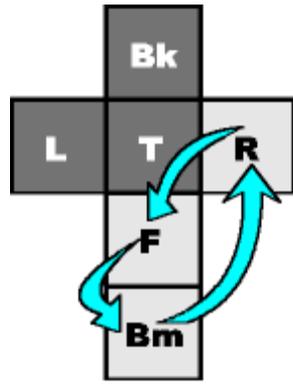
**Result:**  
Case I

**Case V:**  
Mitt CW



**Result:**  
Case VII

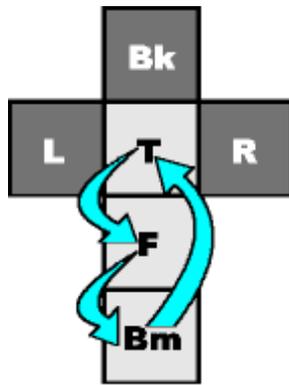
**Case VI:**  
Mitt CCW



**Result:**  
Case VII

**Case VII:**

**Clamp**



**Result:  
Case I**

*Note: the arrows indicate where each face must travel in order to complete the puzzle.*

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