Rubik's Cube Solution — Reference Sheet
Based on solutions by Shelley Chang and Tyson Mao.

**Notation**
The cube has six sides:

- **U**p
- **L**eft
- **F**ront
- **R**ight
- **B**ack
- **D**own

**Clockwise**
U L F R B D

**Counter-Clockwise**
U' L' F' R' B' D'

**Double Turns**
U2 L2 F2 R2 B2 D2

**Example Move:** F

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**Daisy**
Place four edges with white around the yellow center.

**Cross**
Move four white edges onto the white side.

Solve each petal by aligning it and placing it.

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**First Layer Corners**
Select corners with white in the top layer and move them down one at a time.

- **Left Trick** = U' L' U L
- **Right Trick** = U R U' R'

(Right Trick) $\times 3 = (U R U' R')^3$

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**Middle Layer (Edges)**
Select an edge, perform this sequence, then reinsert the corner again using the previous step.

- **Left Trick + Re-Insert** = U' L' U L → Re-Insert
- **Right Trick + Re-Insert** = U R U' R' → Re-Insert
Last Layer
Edge Orientation
Make sure the cube matches the diagram every time before you apply a sequence of moves.

F + Right Trick + F' =
F (U R U' R') F'

F (U R U' R') F'
F (U R U' R') F'

F + Right Trick + F' =
F (U R U' R') F'

F (U R U' R') F'
F (U R U' R') F'

Last Layer
Corner Orientation
Count the number of corners with yellow facing up.

Not 1
Exactly 1

Right Sune =
(R U R') U (R U2 R')

Right Sune =
(R U R') U (R U2 R')

Last Layer
Corner Positions
Align two corners on the left side if possible.

Niklas + Right Sune =
(L' U R U' L U R') (R U R') U (R U2 R')

Last Layer
Edge Positions
Place a solved last-layer edge in the back if possible.

Right Sune + U + Left Sune + U' =
(R U R') U (R U2 R') U (L' U' L) U' (L' U2 L) U'