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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **魔方小站**  **CFOP**  **公式表**  **OLL 按小站顺序分组 (2014/8/26更新)** | **1-1 oll27.gif R’ U2 R U R’ U R** | **1-2 oll26.gif R U’ U’**  **R’ U’ R U’ R’** | **1-3**  **oll24.gif**  **(r U R’ U’) (r’ F R F’)** | **1-4 oll25.gif**  **F’**  **(r U R’ U’)**  **(r’ F R)** | **1-5**  **oll23.gif (R2 D’)**  **(R U’ U’)**  **(R’ D)**  **(R U’ U’ R)** | **1-6 oll21.gif (R U U**  **R’ U’)**  **(R U R’ U’) (R U’ R’)** | **1-7 oll22.gif R U’ U’**  **(R2’ U’)**  **(R2 U’)**  **R2’ U2 R** | **2-1 oll45.gif F**  **(R U R’ U’) F’** | **2-2**  **oll44.gif**  **f**  **(R U R’ U’) f’** |
| **2-3 oll43.gif**  **B’ U’  (R’ U R B)** | **2-4**  **oll33.gif (R U R’ U’)**  **(R’ F R F’)** | **2-5 oll48.gif F**  **(RU R’ U’)2 F’** | **2-6**  **oll47.gif**  **F’**  **(L’ U’ L U)2 F** | **2-7 oll51.gif**  **f**  **(RU R’ U’)2 f’** | **3-1**  **oll2.gif (F R U R’ U’ F’) (f R U R’ U’ f’)** | **3-2**  **oll3.gif**  **(f R U R’ U’ f’) U’ (F**  **R U R’ U’ F’)** | **3-3**  **oll4.gif**  **(f R U R’ U’ f’) U (F**  **R U R’ U’ F’)** | **3-4**  **oll1.gif**  **(R U’ U’)**  **(R2’ F R F’) U2**  **(R’ F R F’)** | **3-5  oll5.gif (r’ U2)**  **(R U R’ U)**  **r** |
| **\3-6**  **oll6.gif**  **(r U’ U’)**  **(R’ U’ R U’ r’)** | **3-7  oll7.gif**  **r U**  **R’ U R**  **U U r’** | **3-8 oll8.gif  r’ U’ R U’ R’ U2 r** | **4-1**  **oll37.gif**  **F**  **(R U’ R’ U’)**  **(R U R’ F’)** | **4-2 oll35.gif R U’ U’**  **(R2’ F R F’)(R U’ U’ R’)** | **4-3**  **oll49.gif**  **(R B’)**  **(R2 F)**  **(R2 B)**  **(R2 F’) R** | **4-4**  **oll50.gif**  **(R’ F)**  **(R2 B’)**  **(R2 F’)**  **(R2 B) R’** | **4-5**  **oll53.gif**  **r’ U2**  **(R U R’ U’)**  **(R U R’ U)**  **r** | **4-6**  **oll54.gif**  **r U**  **(R’ UR U’)2**  **U’ r’** | **4-7 oll17.gif (R U R’ U) (R’ F R F’) U2**  **(R’ F R F’)** |
| **4-8  oll18.gif F**  **(R U R’ U) y’ (R’ U2) (R’ F R F’)** | **4-9  oll19.gif (M下 U)**  **(R U R’ U’)  M上**  **(R’ F R F’)** | **5-1 oll9.gif (R U R’ U’) (R’ F)**  **(R2U R’ U’)**  **F’** | **5-2**  **oll10.gif**  **(R U R’ U)**  **(R’ F R F’)**  **(R U’ U’ R’)** | **5-3 oll28.gif (r U R’ U’) (r’ R)**  **(U R U’ R’)** | **5-4 oll57.gif**  **(R U R’ U’) r R’**  **(U R U’ r’)** | **5-5 oll46.gif (R’ U’)**  **(R’ F R F’)**  **(U R)** | **5-6**  **oll34.gif**  **(R U R’ U’) x D’**  **(R’ U R) E’** | **5-7 oll38.gif (R U R’ U)**  **(R U’ R’ U’)**  **(R’ F R F’)** | **5-8 oll36.gif (R’ U’ R U’) (R’ U R U) (l U’ R’ U)** |
| **5-9**  **oll12.gif (F R U R’ U’ F’) U (F**  **R U R’ U’ F’)** | **5-10 oll11.gif**  **(r U R’ U)**  **(R’ F R F’) R U2 r’** | **6-1 oll32.gif (R U)**  **(B’ U’)**  **(R’URB R’)** | **6-2 oll31.gif**  **(R’ U’ F)**  **(U R U’)**  **(R’ F’ R)** | **6-3 oll40.gif R’ F**  **(R U R’ U’) F’**  **(U R)** | **6-4 oll39.gif L F’**  **(L’ U’ L U) F**  **(U’ L’)** | **6-5**  **oll41.gif (R U R’ U R U2 R’) (F**  **R U R’ U’ F’)** | **6-6**  **oll42.gif**  **(R’ U’ R U’ R’ U2 R) (F**  **R U R’ U’ F’)** | **6-7 oll30.gif (r’ U2 R U R’ U r)**  **(R U2 R’ U’ R U’ R’)** | **6-8 oll29.gif**  **(r U2 R’ U’ R U’ r’)**  **(R’ U2 R U R’ U R)** |
| **7-1 oll16.gif**  **(r U r’)**  **(R U R’ U’)**  **(r U’ r’)** | **7-2 oll15.gif (l’ U’ l)**  **(L’ U’ L U)**  **(l’ U l)** | **7-3**  **oll14.gif R’ F**  **(R U R’ F’ R) y’**  **(R U’ R’)** | **7-4**  **oll13.gif F (U R U’) (R2’ F’)**  **(R U R U’ R’)** | **7-5 oll52.gif (R’ U’ R U’) (R’ U) y’ (R’ U R B)** | **7-6  oll56.gif (r U r’)**  **(UR U’ R’)2**  **(r U’ r’)** | **7-7 oll55.gif R’ F (U R U’) (R2’ F’) (R2 U R’ U’ R)** | **7-8 oll20.gif (r’ R U)**  **(R U R’ U’)**  **(r2 R2’)**  **(U R U’ r’)** | **公式5-6里的E’的意思是:**  **从上往下看时，顺时针转水平的中间层。国际规定E和D顺逆方向一致。** | **如对标记有问题，**  **请到最后页去看标记说明。** |

**魔方小站CFOP公式表PLL**

|  |  |  |  |
| --- | --- | --- | --- |
| **第1组 简版CFOP里面的7个PLL公式** | | | |
| U1 | U | H | Z |
| **1-1**  **(R U’ R) U (R U R U’)**  **(R’ U’ R2)** | **1-2**  **(R2’ U) (R U R’ U’)**  **(R’ U’) (R’ U R’)** | **1-3**  **M2 U M2 U2 M2 U M2** | **1-4**  **(M2 U M2 U) (M上 U2)**  **(M2 U2) (M上 U2)** |
| A1 | A | E |  |
| **1-5**  **x’ R2 D2 (R’ U’ R)**  **D2 (R’ U R’) x** | **1-6**  **x’ (R U’ R) D2 (R’ U R)**  **D2 R2 x** | **1-7**  **[(R2 U R’ U’) y (R U R’ U’)2 (R U R’) y’ (R U’ R2)](http://www.rubik.com.cn/alg/?type=alg&alg=(R2%20U%20R%27%20U%27)%20y%20(R%20U%20R%27%20U%27)2%20(R%20U%20R%27)%20y%27%20(R%20U%27%20R2)&scheme=custom&stage=PLL&view=playback" \t "_blank)** |  |
| **第2组 8个关键的PLL公式** | | | |
| T | J | J1 | Y |
| **2-1**  **(R U R’ U’)**  **(R’ F R2 U’ R’ U’)**  **(R U R’ F’)** | **2-2**  **(R U R’ F’)**  **(R U R’ U’)**  **(R’ F R2 U’ R’ U’)** | **2-3**  **z (U’ R D’)**  **(R2 U R’ U’) (R2 U) D R’** | **2-4**  **[F (R U’ R’ U’) (R U R’ F’) (R U R’ U’) (R’ F R F’)](http://www.rubik.com.cn/alg/?type=alg&alg=F(R%20U%27R%27%20U%27)(R%20U%20R%27%20F%27)(R%20U%20R%27%20U%27)(R%27%20F%20R%20F%27)&scheme=custom&stage=PLL&view=playback" \t "_blank)** |
| F | V | R1 | R |
| **2-5**  **U’ (R’ U R U’) R2’ b’ x  (R’ U R) y’ (R U R’ U’ R2)** | **2-6**  **[(R’ U R’ d’) (R’ F’)  (R2 U’ R’ U) (R’ F R F)](http://www.rubik.com.cn/alg/?type=alg&alg=(R%27%20U%20R%27%20d%27)%20(R%27%20F%27)%20(R2%20U%27%20R%27%20U)(R%27%20F%20R%20F)&scheme=custom&stage=PLL&view=playback&setup=y" \t "_blank)** | **2-7**  **(R U’ U’) (R’ U2)**  **(R B’ R’ U’)**  **(R U R B) R2’ U** | **2-8**  **(R’ U2) (R U’ U’)**  **(R’ F R U R’ U’)**  **(R’ F’ R2 U’)** |
| **第3组 最后6个较难的PLL公式** | | | |
| N1 | N | G1 | G |
| **3-1**  **[z (R’ U R’) z’ (R U2 L’ U R’) z (U R’) z’ (R U2 L’ U R’)](http://www.rubik.com.cn/alg/?type=alg&alg=z(R%27%20U%20R%27)z%27(R%20U2%20L%27%20U%20R%27)z(U%20R%27)z%27(R%20U2%20L%27%20U%20R%27)&scheme=custom&stage=PLL&view=playback" \t "_blank)** | **3-2**  **z (U’ R D’) (R2 U R’ U’) z’**  **(R U R’) z (R2 U R’) D R’** | **3-3**  **(R2’ u’) (R U’ R) U**  **(R’ u R2’) y (R U’ R’)** | **3-4**  **(R U R’) y’ (R2’ u’)**  **(R U’ R’ U) (R’ u R2)** |
| G3 | G2 |  |  |
| **3-5**  **(R2’ u R’) (U R’ U’)**  **(R u’ R2’) y’ (R’ U R)** | **3-6**  **(R’ d’ F) (R2’ u R’) U**  **(R U’ R) u’ R2** | **如对标记有问题，请到最后页去看标记说明。** |  |

**魔方小站CFOP公式表F2L**

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| **第1组：四种基本情况** | | | |
| image071 (R U R’) | image073  y’ (R’ U’ R)  或 [F’ U’ F](http://www.rubik.com.cn/alg/?type=alg&alg=F-_U-_F&scheme=custom&stage=F2L&view=playback" \t "_blank) | image033  y’ U’ (R’ U R)  或 [F R’ F’ R](http://www.rubik.com.cn/alg/?type=alg&alg=F%20R'%20F'%20R&scheme=custom&stage=F2L&view=playback" \t "_blank) | image035 U R U’ R’  或 [R’ F R F’](http://www.rubik.com.cn/alg/?type=alg&alg=R'%20F%20R%20F'&scheme=custom&stage=F2L&view=playback" \t "_blank) |
| **第2组六种情况：可转化为第1和第2种基本情况** | | | |
| image063  U’ (R U R’ U) (R U R’) | image037  [d (R’ U2 R) d’ (R U R’)](http://www.rubik.com.cn/alg/?type=alg&alg=d%20(R'%20U2%20R)%20d'%20(R%20U%20R')&scheme=custom&stage=F2L&view=playback" \t "_blank) | image047 U’ (R U’ R’ U) (R U R’) |  |
| image065  [U y’ (R’ U’ R U’) (R’ U’ R)](http://www.rubik.com.cn/alg/?type=alg&alg=U%20y'%20(R'U'R%20U')(R'U'R)&scheme=custom&stage=F2L&view=playback&setup=y-" \t "_blank) | image039  [U’ (R U2’ R’) d (R’ U’ R)](http://www.rubik.com.cn/alg/?type=alg&alg=U'%20(R%20U2'%20R')%20d%20(R'%20U'%20R)&scheme=custom&stage=F2L&view=playback&setup=y-" \t "_blank) | image049 d (R’ U R U’) (R’ U’ R) |  |
| **第3组四种情况：可转化为第3和第4种基本情况** | | | |
| image069 [U’ (R U2’ R’) U2 (R U’ R’)](http://www.rubik.com.cn/alg/?type=alg&alg=U'%20(R%20U2'%20R')%20U2%20(R%20U'%20R')&scheme=custom&stage=F2L&view=playback" \t "_blank) | image061  [(U’ R U R’) U2 (R U’ R’)](http://www.rubik.com.cn/alg/?type=alg&alg=(U'%20R%20U%20R')%20U2%20(R%20U'%20R')&scheme=custom&stage=F2L&view=playback" \t "_blank) | image067 [d (R’ U2 R) U2’ (R’ U R)](http://www.rubik.com.cn/alg/?type=alg&alg=d%20(R'%20U2%20R)%20U2'%20(R'%20U%20R)&scheme=custom&stage=F2L&view=playback&setup=y-" \t "_blank) | image059  [d (R’ U’ R) U2’ (R’ U R)](http://www.rubik.com.cn/alg/?type=alg&alg=d%20(R'%20U'%20R)%20U2'%20(R'%20U%20R)&scheme=custom&stage=F2L&view=playback&setup=y-" \t "_blank) |
| **第4组四种情况：角棱都在顶层并分开，并且角块白色朝上** | | | |
| image075  [y’ U’ (R’ U2 R) U’ (R’ U R)](http://www.rubik.com.cn/alg/?type=alg&alg=y'%20U'%20(R'%20U2%20R)%20U'%20(R'%20U%20R)&scheme=custom&stage=F2L&view=playback&setup=y-" \t "_blank) | image077 [U R U2 R2’ (F R F’)](http://www.rubik.com.cn/alg/?type=alg&alg=U%20R%20U2%20R2'%20(F%20R%20F')&scheme=custom&stage=F2L&view=playback" \t "_blank)  或[U (R U2 R’) U (R U’ R’)](http://www.rubik.com.cn/alg/?type=alg&alg=U%20(R%20U2%20R')%20U%20(R%20U'%20R')&scheme=custom&stage=F2L&view=playback" \t "_blank) | image079  [U2 (R U R’ U) (R U’ R’)](http://www.rubik.com.cn/alg/?type=alg&alg=U2%20(R%20U%20R'%20U)(R%20U'%20R')&scheme=custom&stage=F2L&view=playback" \t "_blank) 或 [(R U’ R’) U2 (R U R’)](http://www.rubik.com.cn/alg/?type=alg&alg=(R%20U'%20R')%20U2%20(R%20U%20R')&scheme=custom&stage=F2L&view=playback" \t "_blank) | image081 [y’ U2 (R’ U’ R U’) (R’ U R)](http://www.rubik.com.cn/alg/?type=alg&alg=y'%20U2%20(R'%20U'%20R%20U')%20(R'%20U%20R)&scheme=custom&stage=F2L&view=playback&setup=y-" \t "_blank) 或 [y’ (R’ U R) U2 (R’ U’ R)](http://www.rubik.com.cn/alg/?type=alg&alg=y'%20(R'%20U%20R)%20U2%20(R'%20U'%20R)&scheme=custom&stage=F2L&view=playback&setup=y-" \t "_blank) |
| **第5组两种情况：远切回回接孩子放学** | | | |
| image011  [U (R U’ R’) U’ (F’ U F)](http://www.rubik.com.cn/alg/?type=alg&alg=U%20(R%20U'%20R')%20U'%20(F'%20U%20F)%20%20&scheme=custom&stage=F2L&view=playback" \t "_blank) | image021  [U’ (F’ U F) U (R U’ R’)](http://www.rubik.com.cn/alg/?type=alg&alg=U'%20(F'%20U%20F)%20U%20(R%20U'%20R')%20&scheme=custom&stage=F2L&view=playback" \t "_blank) |  |  |
| **第6组四种情况：棱块在第二层，角块在顶层并且白色朝侧面** | | | |
| image027 d (R’ U’ R) d’ (R U R’) | image029 U’ (R U R’) d (R’U’ R) | image023 [U’ (R U2’ R’) U (R U R’)](http://www.rubik.com.cn/alg/?type=alg&alg=U'%20(R%20U2'%20R')%20U%20(R%20U%20R')&scheme=custom&stage=F2L&view=playback" \t "_blank)  或 [d (R’ U R) U2 (R’ U R)](http://www.rubik.com.cn/alg/?type=alg&alg=d%20(R'%20U%20R)%20U2%20(R'%20U%20R)&scheme=custom&stage=F2L&view=playback&setup=y-" \t "_blank) | image025 [(U’ R U’ R’) U2 (R U’ R’)](http://www.rubik.com.cn/alg/?type=alg&alg=(U'%20R%20U'%20R')%20U2%20(R%20U'%20R')&scheme=custom&stage=F2L&view=playback" \t "_blank) |
| **第7组两种情况：藏棱、角块越过棱块头顶转180°** | | | |
| image057 [(R U2’ R’) U’ (R U R’)](http://www.rubik.com.cn/alg/?type=alg&alg=(R%20U2'%20R')%20U'%20(R%20U%20R')&scheme=custom&stage=F2L&view=playback" \t "_blank) | image055  [y’ (R’ U2 R) U (R’ U’ R)](http://www.rubik.com.cn/alg/?type=alg&alg=y'%20(R'%20U2%20R)%20U%20(R'%20U'%20R)&scheme=custom&stage=F2L&view=playback&setup=y-" \t "_blank) |  |  |
| **第8组两种情况：藏棱、角块越过棱块头顶转90°** | | | |
| image043 [(R U’ R’ U) d (R’ U’ R)](http://www.rubik.com.cn/alg/?type=alg&alg=(R%20U'%20R'%20U)%20d%20(R'%20U'%20R)&scheme=custom&stage=F2L&view=playback&setup=y-" \t "_blank) | image045 [y’ (R’ U R U’) d’ (R U R’)](http://www.rubik.com.cn/alg/?type=alg&alg=y'%20(R'%20U%20R%20U')%20d'%20(R%20U%20R')&scheme=custom&stage=F2L&view=playback" \t "_blank) 或 [M U L F’ L’ U’ M’](http://www.rubik.com.cn/alg/?type=alg&alg=M%20U%20L%20F'%20L'%20U'%20M'%20&scheme=custom&stage=F2L&view=playback" \t "_blank) |  |  |
| **第9组两种情况：角棱一上一下，并且角块白色朝上** | | | |
| image041  [(R U’ R’) d (R’ U R)](http://www.rubik.com.cn/alg/?type=alg&alg=(R%20U'%20R')%20d%20(R'%20U%20R)&scheme=custom&stage=F2L&view=playback&setup=y-" \t "_blank) | image031 [(R U R’ U’)2 (R U R’)](http://www.rubik.com.cn/alg/?type=alg&alg=(R%20U%20R'%20U')(R%20U%20R'%20U')(R%20U%20R')&scheme=custom&stage=F2L&view=playback" \t "_blank) 或 [(U R U’ R’)](http://www.rubik.com.cn/alg/?type=alg&alg=(U%20R%20U'%20R')(U%20R%20U'%20R')(U%20R%20U'%20R')&scheme=custom&stage=F2L&view=playback" \t "_blank)3 |  |  |
| **第10组四种情况：棱块在顶层，角块在底层且白色在侧面** | | | |
| image015 (R U’ R’ U) (R U’ R’) | image013 [y’ (R’ U R) U’ (R’ U R)](http://www.rubik.com.cn/alg/?type=alg&alg=y'(R'%20U%20R)%20U'%20(R'%20U%20R)&scheme=custom&stage=F2L&view=playback&setup=y-" \t "_blank) 或 [(R U R’ U’) (F R’ F’ R)](http://www.rubik.com.cn/alg/?type=alg&alg=(R%20U%20R'%20U')%20(F%20R'%20F'%20R)&scheme=custom&stage=F2L&view=playback" \t "_blank) | image017_2 (R U R’U’) (R U R’) | image019_2  [y L’ U’ L U L’ U’ L](http://www.rubik.com.cn/alg/?type=alg&alg=y%20L'%20U'%20L%20U%20L'%20U'%20L&scheme=custom&stage=F2L&view=playback&setup=y" \t "_blank) 或 [y’ (R’ U’ R U) (R’ U’ R)](http://www.rubik.com.cn/alg/?type=alg&alg=y'%20(R'%20U'%20R%20U)(R'%20U'%20R)&scheme=custom&stage=F2L&view=playback&setup=y-" \t "_blank) |
| **第11组两种情况：角棱在顶层挨着，并且侧面同色; 角块白色朝上** | | | |
| image053   (R U R’) d (R’ U R U’)  (R’ U R) | image051  [U2 R2 U2 (R’ U’ R U’) R2](http://www.rubik.com.cn/alg/?type=alg&alg=U2%20R2%20U2%20(R'%20U'%20R%20U')%20R2%20&scheme=custom&stage=F2L&view=playback" \t "_blank) 或 [(R U R’ U’) U’ (R U R’ U’) (R U R’)](http://www.rubik.com.cn/alg/?type=alg&alg=(R%20U%20R'%20U')%20U'%20(R%20U%20R'%20U')(R%20U%20R')&scheme=custom&stage=F2L&view=playback" \t "_blank) |  |  |
| **第12组五种情况：角棱对都在下面两层，并且在它们自己的槽位里** | | | |
| image003 (R U’ R’ U) (R U2’ R’)  U (R U’ R’) | image007 (R U’ R’ U) d (R’ U’ R U’)  (R’ U R) | image005 (R U’ R’) U’ (R U R’)  U2 (R U’ R’) | image009 (R U’ R’ U’) (R U’ R’)  U (F’ U’ F) |
| image001 (R U’ U’ R’ U)2 y’ (R’ U’ R) |  |  |  |

**按传统OLL公式顺序的OLL公式表**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1**  **oll1.gif**  **(R U’ U’)**  **(R2’ F R F’) U2**  **(R’ F R F’)** | **2**  **oll2.gif (F R U R’ U’ F’)**  **(f R U R’ U’ f’)** | **3**  **oll3.gif**  **(f RU R’ U’**  **f’) U’ (F R U R’ U’ F’)** | **4**  **oll4.gif**  **(f R U R’U’**  **f’) U (F**  **R U R’ U’F’)** | **5  oll5.gif (r’ U2)**  **(R U R’ U)**  **r** | **6**  **oll6.gif**  **(r U’ U’)**  **(R’ U’ R U’ r’)** | **7  oll7.gif**  **r U**  **R’ U R**  **U U r’** | **8  oll8.gif r’ U’ R U’ R’ U2 r** | **9  oll9.gif (R U R’ U’) (R’ F)**  **(R2U R’ U’) F’** | **10**  **oll10.gif**  **(R U R’ U)**  **(R’ F R F’)**  **(R U’ U’ R’)** |
| **11 oll11.gif**  **(r U R’ U)**  **(R’ F R F’) R U2 r’** | **12**  **oll12.gif (F R U R’ U’ F’) U (F**  **R U R’ U’ F’)** | **13**  **oll13.gif F (U R U’) (R2’ F’) (R U R U’ R’)** | **14**  **oll14.gif R’ F(R U R’ F’ R) y’**  **(R U’ R’)** | **15  oll15.gif (l’ U’ l)**  **(L’ U’ L U)**  **(l’ U l)** | **16  oll16.gif**  **(r U r’)**  **(R U R’ U’)**  **(r U’ r’)** | **17  oll17.gif (R U R’ U) (R’ F R F’) U2**  **(R’ F R F’)** | **18  oll18.gif F (R U R’ U) y’ (R’ U2)**  **(R’ F R F’)** | **19  oll19.gif (M下 U)**  **(R U R’ U’)  M上**  **(R’ F R F’)** | **20  oll20.gif (r’ R U)**  **(R U R’ U’)**  **(r2 R2’)**  **(U R U’ r’)** |
| **21 oll21.gif  (R U U R’U’)**  **(R U R’ U’) (R U’ R’)** | **22  oll22.gif R U’ U’ (R2’ U’)**  **(R2 U’)**  **R2’ U2 R** | **23**  **oll23.gif (R2 D’)**  **(R U’ U’)**  **(R’ D)**  **(R U’ U’ R)** | **24**  **oll24.gif**  **(r U R’ U’) (r’ F R F’)** | **25  oll25.gif**  **F’**  **(r U R’ U’)**  **(r’ F R)** | **26  oll26.gif R U’ U’**  **R’ U’ R U’ R’** | **27 oll27.gif  R’ U2 R U R’ U R** | **28  oll28.gif (r U R’ U’) (r’ R)**  **(U R U’ R’)** | **29 oll29.gif**  **(r U2 R’**  **U’ R U’ r’)**  **(R’ U2 R**  **U R’ U R)** | **30  oll30.gif (r’ U2 R U R’ U r)**  **(R U2 R’ U’ R U’ R’)** |
| **31  oll31.gif**  **(R’ U’ F)**  **(U R U’)**  **(R’ F’ R)** | **32  oll32.gif (R U)**  **(B’ U’)**  **(R’ U R B R’)** | **33**  **oll33.gif (R U R’ U’)**  **(R’ F R F’)** | **34**  **oll34.gif**  **(R U R’ U’) x D’**  **(R’ U R) E’** | **35  oll35.gif R U’ U’**  **(R2’ F R F’) (R U’ U’ R’)** | **36  oll36.gif (R’ U’ R U’) (R’ U R U)**  **(l U’ R’ U)** | **37**  **oll37.gif**  **F**  **(R U’ R’ U’)**  **(R U R’ F’)** | **38  oll38.gif (R U R’ U)**  **(R U’ R’ U’)**  **(R’ F R F’)** | **39  oll39.gif L F’**  **(L’ U’ L U) F (U’ L’)** | **40 oll40.gif  R’ F**  **(R U R’ U’) F’ (U R)** |
| **41**  **oll41.gif (R U R’ U R U2 R’)**  **(F R U R’ U’ F’)** | **42**  **oll42.gif**  **(R’ U’ R U’ R’ U2 R)**  **(F R U R’ U’ F’)** | **43 oll43.gif**  **B’ U’  (R’ U R B)** | **44**  **oll44.gif**  **f**  **(R U R' U')**  **f'** | **45  oll45.gif F**  **(R U R’ U’) F’** | **46  oll46.gif (R’ U’)**  **(R’ F R F’)**  **(U R)** | **47**  **oll47.gif**  **F’**  **(L’ U’ L U)2 F** | **48  oll48.gif F**  **(R U R’ U’)2**  **F’** | **49**  **oll49.gif**  **(R B’)**  **(R2 F)**  **(R2 B)**  **(R2 F’) R** | **50**  **oll50.gif**  **(R’ F)**  **(R2 B’)**  **(R2 F’)**  **(R2 B) R’** |
| **51 oll51.gif**  **f**  **(RU R’U’)2**  **f’** | **52  oll52.gif (R’ U’ R U’) (R’ U) y’ (R’ U R B)** | **53**  **oll53.gif**  **r’ U2**  **(R U R’ U’)**  **(R U R’ U)**  **r** | **54**  **oll54.gif**  **r U**  **(R’URU’)2U’ r’** | **55  oll55.gif R’ F (U R U’) (R2’ F’) (R2 U R’ U’ R)** | **56  oll56.gif (r U r’)**  **(UR U’R’)2**  **(r U’ r’)** | **57  oll57.gif**  **(R U R’ U’) r R’**  **(U R U’ r’)** | **公式34里的E’的意思是:**  **从上往下看时，顺时针转水平的中间层。国际规定E和D顺逆方向一致。** | **对标记有问题请到最后页去看标记说明。** |  |

以下公式标记解释图为魔方吧小白同学原创，经过魔方小站部分修改。







