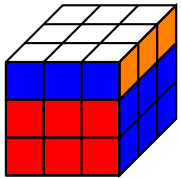
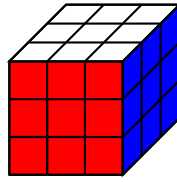


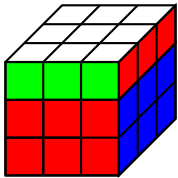
# Méthode avancée pour remonter le Rubik's cube

(Jessica Fridrich)

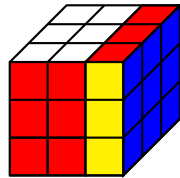
## Notation internationale (la plus utilisée)



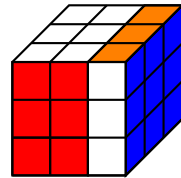
U



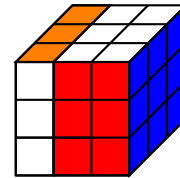
U'



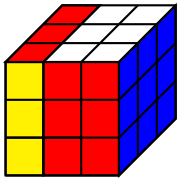
R



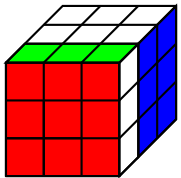
R'



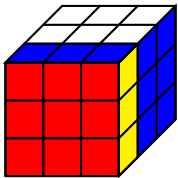
L



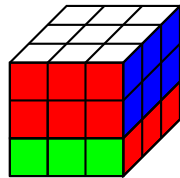
L'



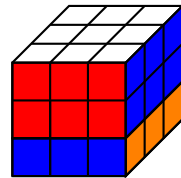
F



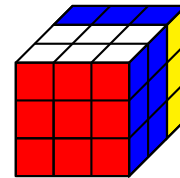
F'



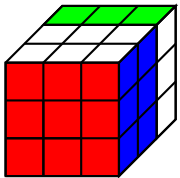
D



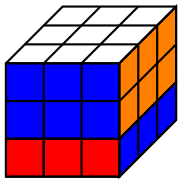
D'



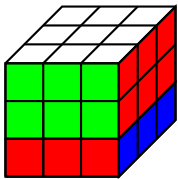
B



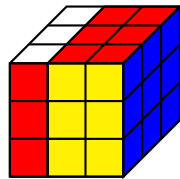
B'



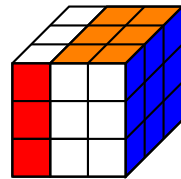
u



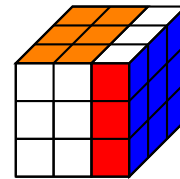
u'



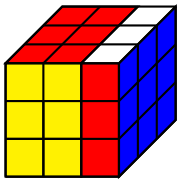
r



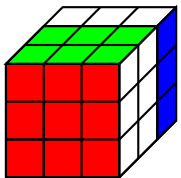
r'



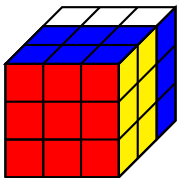
l



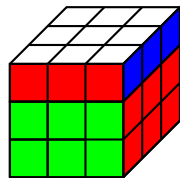
l'



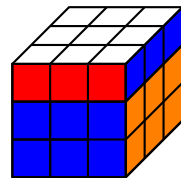
f



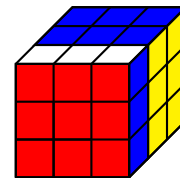
f'



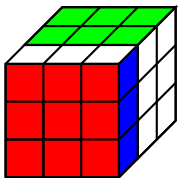
d



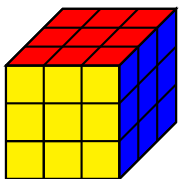
d'



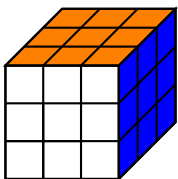
b



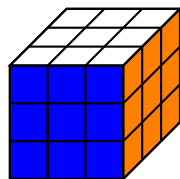
b'



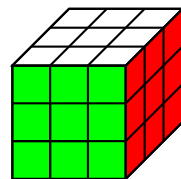
x



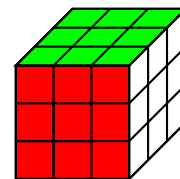
x'



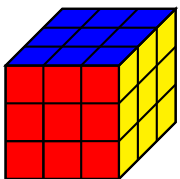
y



y'

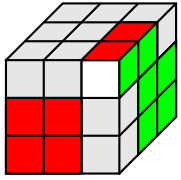


z

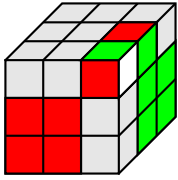


z'

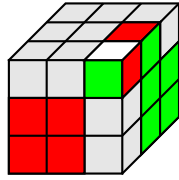
F2L : First Two Layer - Les deux premières couronnes d'abord



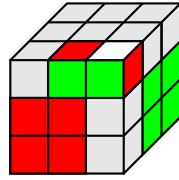
U R U' R'



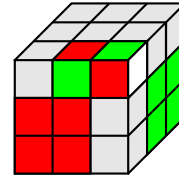
U' R U' R'  
U R U R'



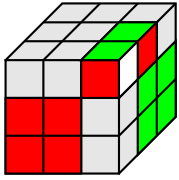
R U2 R' U'  
R U R'



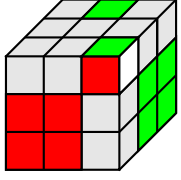
R U R' F' U  
F R U R'



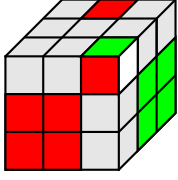
R' U2 R2 U  
R2 U R



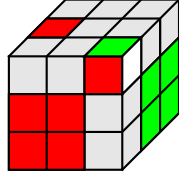
R U' R' U2  
F' U' F



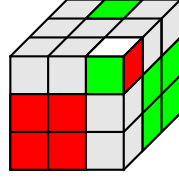
F' U' L' U2  
L U' F



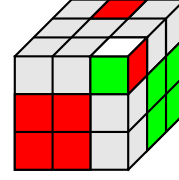
R U R'



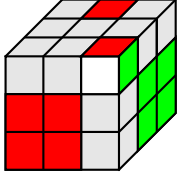
U' R U R' U  
R U R'



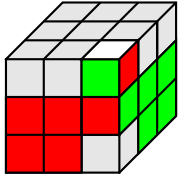
F' L' U2 L F



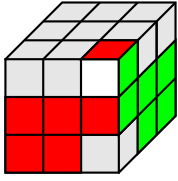
U R U2 R'  
U R U' R



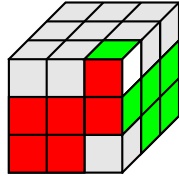
U' R U R'  
U2 R U' R'



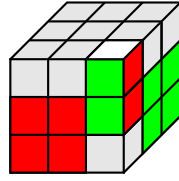
R2 U R2 U  
R2 U2 R2



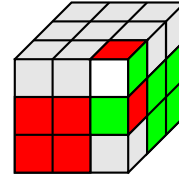
U' R U' R'  
U2 R U' R'



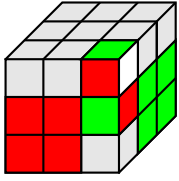
U' R U2 R'  
U R U R'



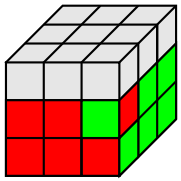
R U' R' U  
F' U F



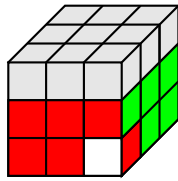
U2 R U R' F  
R' F' R



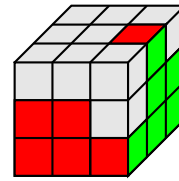
U2 F' U F U  
R U R'



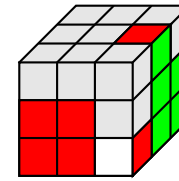
R U' R U2 F  
R2 F' U2 R2



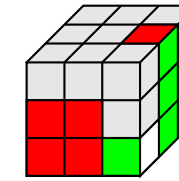
R U2 R U2 F  
R F' U2 R2



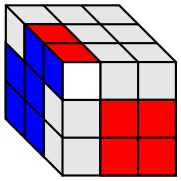
U' F' U F R'  
F R F'



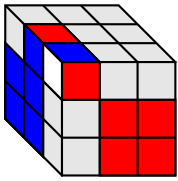
R U' R' U R  
U' R'



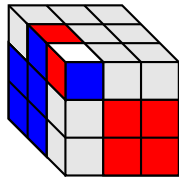
R U R' U' R  
U R'



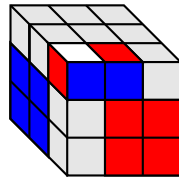
U' L' U L



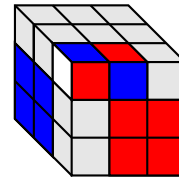
U L' U L U'  
L' U' L



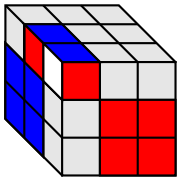
L' U2 L U L'  
U' L



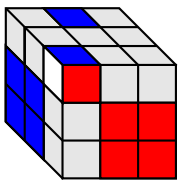
L' U' L F U'  
F' L' U' L



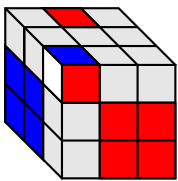
L U2 L2 U'  
L2 U' L'



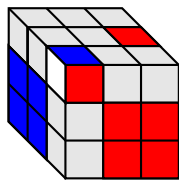
L' U L U2 F  
U F'



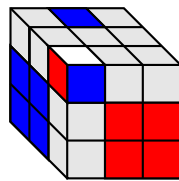
F U R U2 R'  
U F'



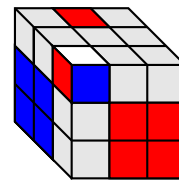
L' U' L



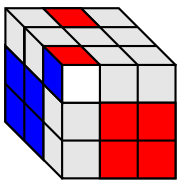
U L' U' L U'  
L' U' L



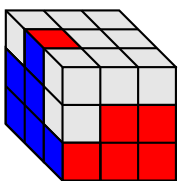
F R U2 R'  
F'



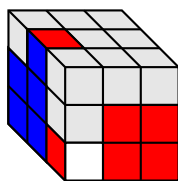
U' L' U2 L  
U' L' U L



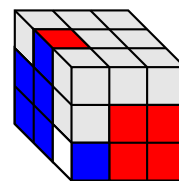
U L' U' L  
U2 L' U L



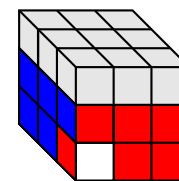
U F U' F' L  
F' L' F



L' U L U' L'  
U L



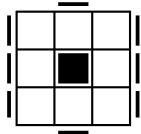
L' U' L U L'  
U' L



L' U2 L' U2  
F' L' F U2 L2

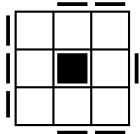
OLL : Orient Last Layer - Orientation de la dernière couronne

1 -  $\frac{1}{108}$



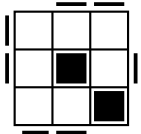
R U2 R2 F R F'  
U2 R' F R F'

2 -  $\frac{1}{54}$



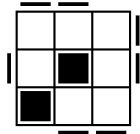
F R U R' U' F' f R  
U R' U' f'

3 -  $\frac{1}{54}$



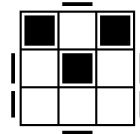
l L2 U' L U' l' U2 l  
U' L l'

4 -  $\frac{1}{54}$



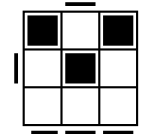
r' R2 U R' U r U2  
r' U R' r

5 -  $\frac{1}{54}$



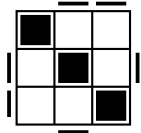
r' U2 R U R' U r2  
U2 R' U' R U' r'

6 -  $\frac{1}{54}$



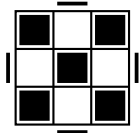
r U R' U R U2 r2  
U' R U' R' U2 r

7 -  $\frac{1}{54}$



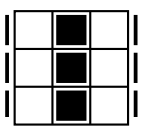
R U R' U R' F R  
F' U2 R' F R F'

8 -  $\frac{1}{216}$



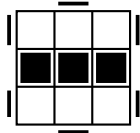
r' R U R U R' U'  
r2 R2 U R U' r'

9 -  $\frac{1}{108}$



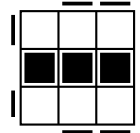
R U2 R2 U' R U'  
R' U2 F R F'

10 -  $\frac{1}{108}$



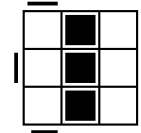
F R U R' U' R F' r  
U R' U' r'

11 -  $\frac{1}{54}$



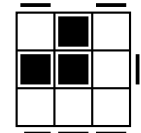
f R U R' U' R U R'  
U' f

12 -  $\frac{1}{54}$



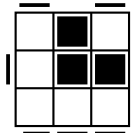
R' U' R U' R' U F'  
U F R

13 -  $\frac{1}{54}$



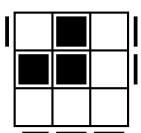
r U2 R' U' R U R'  
U' R U' r'

14 -  $\frac{1}{54}$



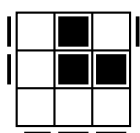
l' U2 L U L' U' L  
U L' U l

15 -  $\frac{1}{54}$



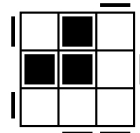
F R' F2 L F2 R F2  
L' F

16 -  $\frac{1}{54}$



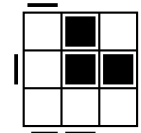
F' L F2 R' F2 L'  
F2 R F'

17 -  $\frac{1}{54}$



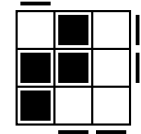
F R U R' U' R U  
R' U' F'

18 -  $\frac{1}{54}$



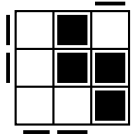
F' L' U' L U L' U'  
L U F

19 -  $\frac{1}{54}$



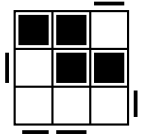
r U R' U R U2 r'

20 -  $\frac{1}{54}$



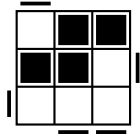
l' U' L U' L' U2 l

21 -  $\frac{1}{54}$



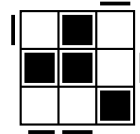
r R2 U' R U' R'  
U2 R U' R r'

22 -  $\frac{1}{54}$



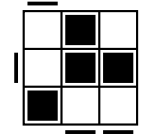
l' L2 U L' U L U2  
L' U L' l

23 -  $\frac{1}{54}$



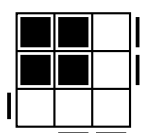
R' U' R F R' F' U  
F R F'

24 -  $\frac{1}{54}$



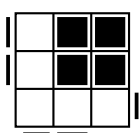
L U L' F' L F U'  
F' L' F

25 -  $\frac{1}{54}$



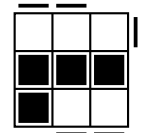
l' U2 L U L' U l

26 -  $\frac{1}{54}$



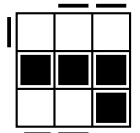
r U2 R' U' R U' r'

27 -  $\frac{1}{54}$



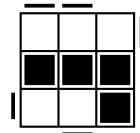
F U R U2 R' U' R  
U R' F'

28 -  $\frac{1}{54}$



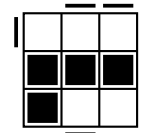
F' U' L' U2 L U L'  
U' L F

29 -  $\frac{1}{54}$



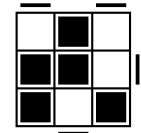
r' U' r R' U' R U r'  
U r

30 -  $\frac{1}{54}$



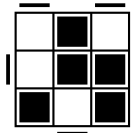
l U l' L U L' U' l  
U' l'

31 -  $\frac{1}{54}$



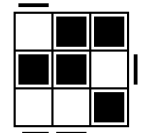
R U R' U R U2 R'  
F R U R' U' F'

32 -  $\frac{1}{54}$



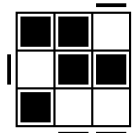
L' U' L U' L' U2 L  
F' L' U' L U F

33 -  $\frac{1}{54}$



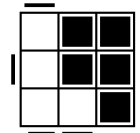
R U R' U' R U' R'  
F' U' F R U R'

34 -  $\frac{1}{54}$



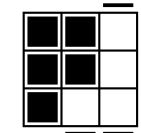
L' U' L U L' U L F  
U F' L' U' L

35 -  $\frac{1}{54}$



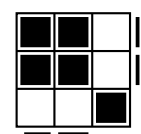
R' U' F U R U' R'  
F' R

36 -  $\frac{1}{54}$



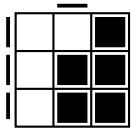
L U F' U' L' U L F  
L'

37 -  $\frac{1}{54}$



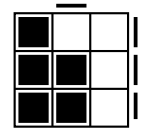
F R' F' R U R U'  
R'

38 -  $\frac{1}{54}$



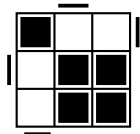
f R U R' U' f'

39 -  $\frac{1}{54}$



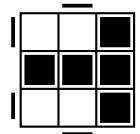
f' L' U' L U f

40 -  $\frac{1}{54}$



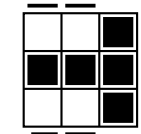
R U2 R2 F R F' R  
U2 R'

41 -  $\frac{1}{54}$



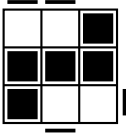
F R U R' U' F'

42 -  $\frac{1}{54}$



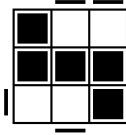
R U R' U' R' F R  
F'

43 -  $\frac{1}{54}$



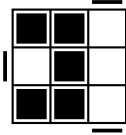
L F' L' U' L U F  
U' L'

44 -  $\frac{1}{54}$



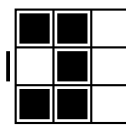
R' F R U R' U' F'  
U R

45 -  $\frac{1}{54}$



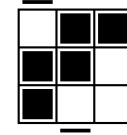
F U F' U' R' F' L  
F r' R

46 -  $\frac{1}{54}$



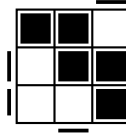
R' U' R' F R F' U  
R

47 -  $\frac{1}{54}$



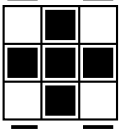
R U R' U R U' R'  
U' R' F R F'

48 -  $\frac{1}{54}$



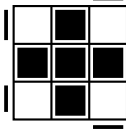
L' U' L U' L' U L  
U L F' L' F

49 -  $\frac{1}{108}$



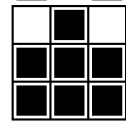
R U2 R' U' R U R'  
U' R U' R'

50 -  $\frac{1}{54}$



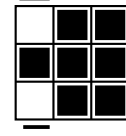
R U2 R2 U' R2 U'  
R2 U2 R

51 -  $\frac{1}{54}$



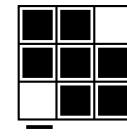
R' U2 R F U' R'  
U' R U F'

52 -  $\frac{1}{54}$



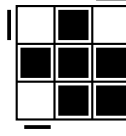
r U R' U' r' F R F'

53 -  $\frac{1}{54}$



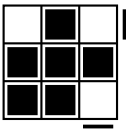
F R' F' r U R U' r'

54 -  $\frac{1}{54}$



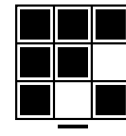
L' U' L U' L' U2 L

55 -  $\frac{1}{54}$



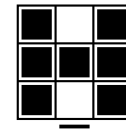
R U R' U R U2 R'

56 -  $\frac{1}{54}$



r U R' U' r' R U R  
U' R'

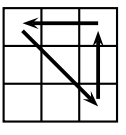
57 -  $\frac{1}{108}$



R U R' U' R' r U  
R U' r'

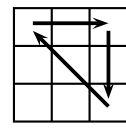
**PLL : Permute Last Layer - Permutation de la dernière couronne**

A -  $\frac{1}{18}$



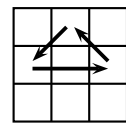
l' R' D2 R U R' D2  
R U' R

A' -  $\frac{1}{18}$



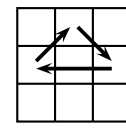
l' U R' D2 R U' R'  
D2 R2

U -  $\frac{1}{18}$



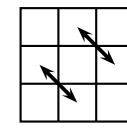
R2 U' R' U' R U R  
U R U' R

U' -  $\frac{1}{18}$



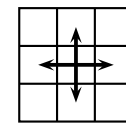
R' U R' U' R' U'  
R' U R U R2

Z -  $\frac{1}{36}$



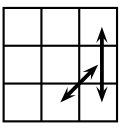
U R' U' R U' R U  
R U' R' U R U R2  
U' R' U

H -  $\frac{1}{72}$



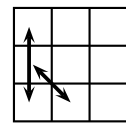
r2 R2 U r2 R2 U2  
r2 R2 U R2 r2

J -  $\frac{1}{18}$



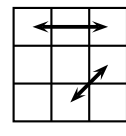
R U R' F' R U R'  
U' R' F R2 U' R'  
U'

Jsym -  $\frac{1}{18}$



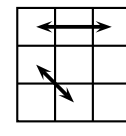
L' U' L F L' U' L  
U L F' L2 U L U

R -  $\frac{1}{18}$



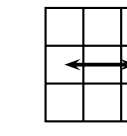
R' U2 R U2 R' F  
R U R' U' R' F'  
R2 U'

Rsym -  $\frac{1}{18}$



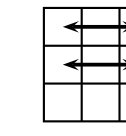
L U2 L' U2 L F' L'  
U' L U L F L2 U

T -  $\frac{1}{18}$



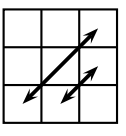
R U R' U' R' F R2  
U' R' U' R U R' F'

F -  $\frac{1}{18}$



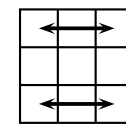
R' U R U' R2 F'  
U' F U R F R' F'  
R2 U'

V -  $\frac{1}{18}$



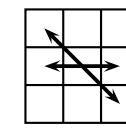
L' U R U' L U L'  
U R' U' L U2 R  
U2 R'

E -  $\frac{1}{36}$



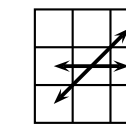
x U R' U' L U R  
U' r2 U' R U L U'  
R' U

N -  $\frac{1}{72}$



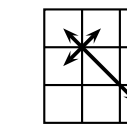
R' U R' F R F' R  
U' R' F' U F R U  
R' U' R

Nsym -  $\frac{1}{72}$



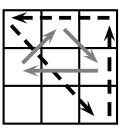
L U' L F' L' F L'  
U L F U' F' L' U'  
L U L'

Y -  $\frac{1}{18}$



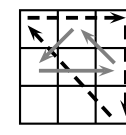
F R U' R' U' R U  
R' F' R U R' U' R'  
F R F'

G -  $\frac{1}{18}$



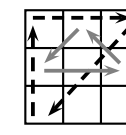
L2 u' L U' L U L'  
u L2 F U' F'

G' -  $\frac{1}{18}$



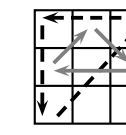
y' R U R' y L2 u'  
L U' L' U L' u L2

Gsym -  $\frac{1}{18}$



R2 u R' U R' U' R  
u' R2 F' U F

G'sym -  $\frac{1}{18}$



y L' U' L y' R2 u  
R' U R U' R u' R2