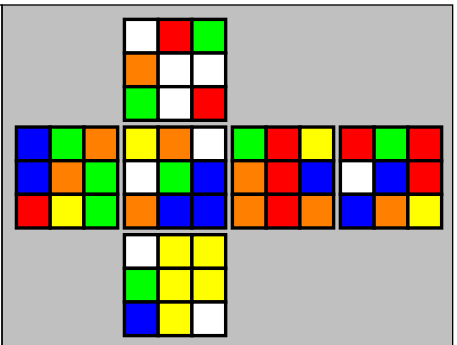
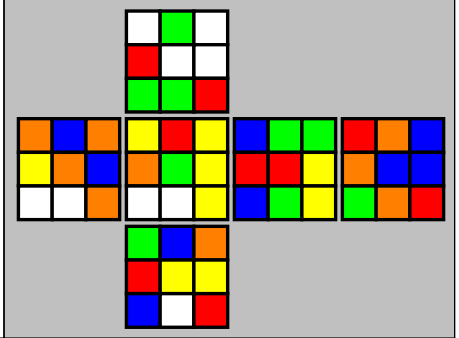
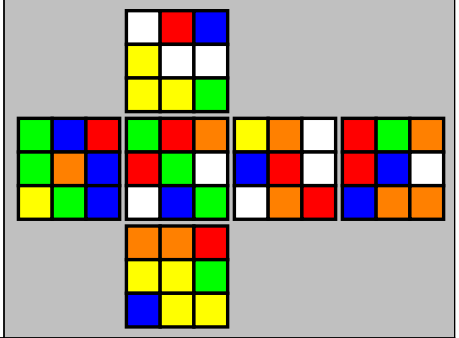
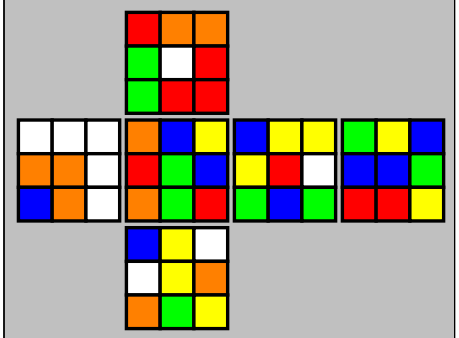
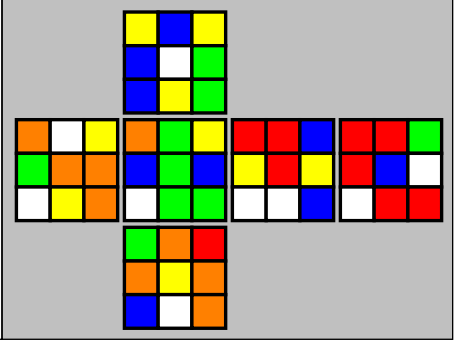
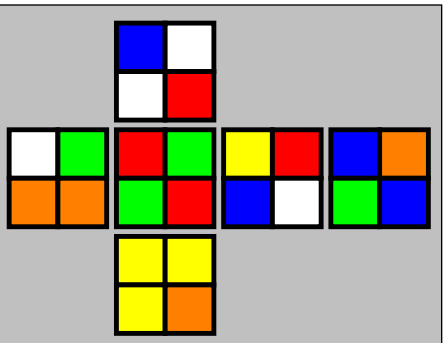
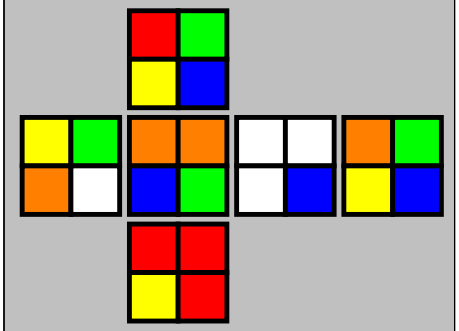
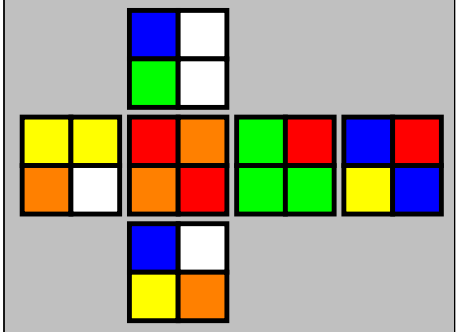
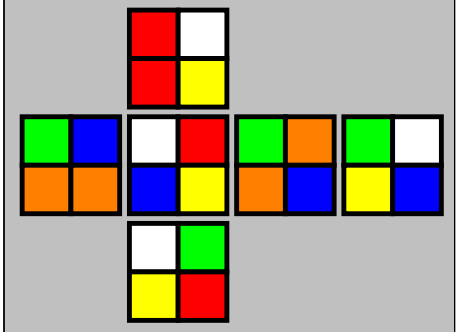
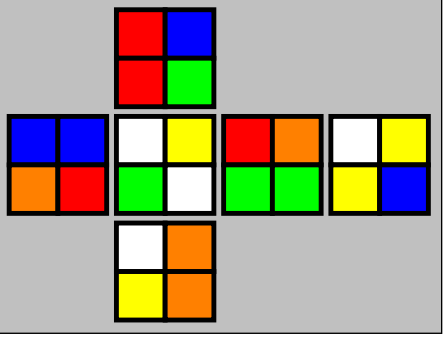
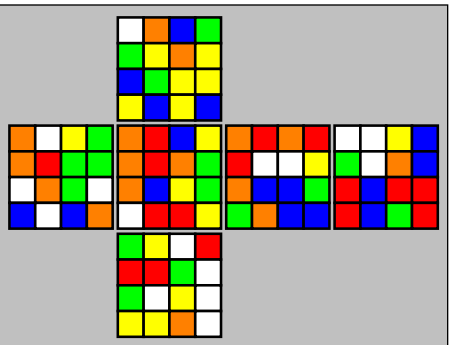
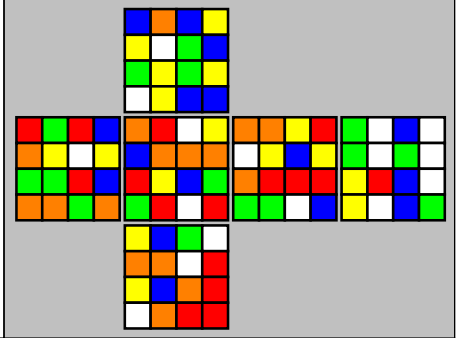
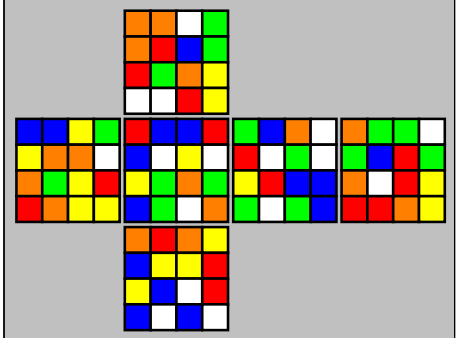
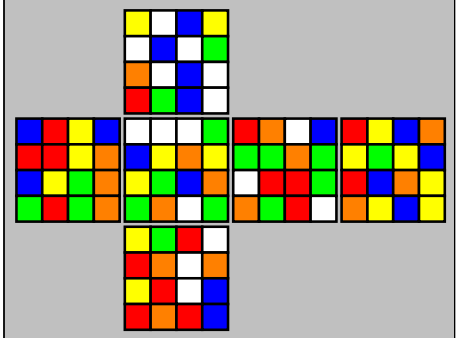
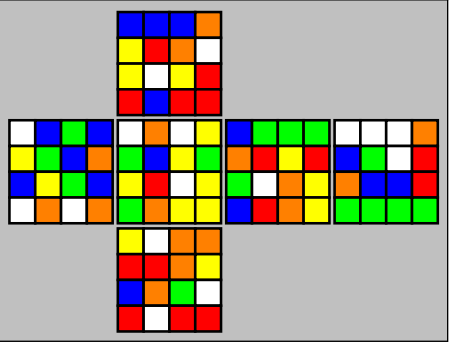
1.	L2 D2 B2 R2 B2 L2 U2 B2 D' F2 D L R' D B L2 D' L R' B' U'	
2.	F2 L2 D F2 U' B2 L2 F2 L2 U B U2 L' F' D B2 R2 U2 L' U'	
3.	R D' L2 U R2 F D' L' U2 D R' D L2 U D R2 D' B2 L2	
4.	L' D2 U2 L' U2 R B2 L R D2 R' F' D2 L' B' D' R2 F2 D F'	
5.	R2 D2 R2 B2 U F2 D L' F L2 F2 R' B' R B2 F2 U' L2 U2	

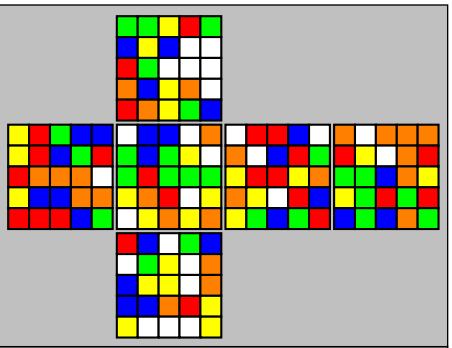
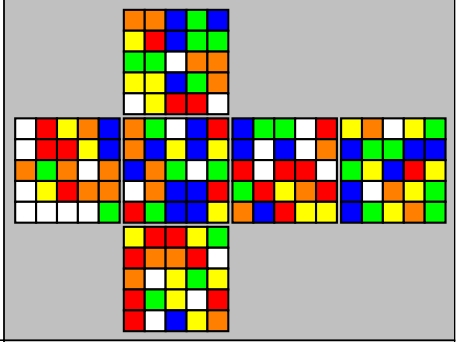
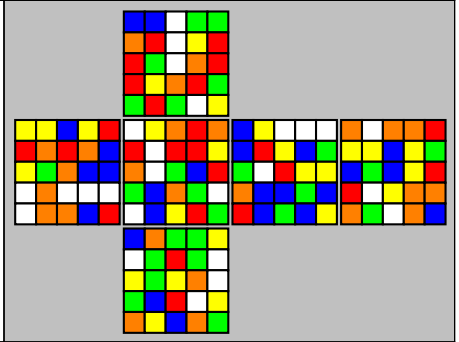
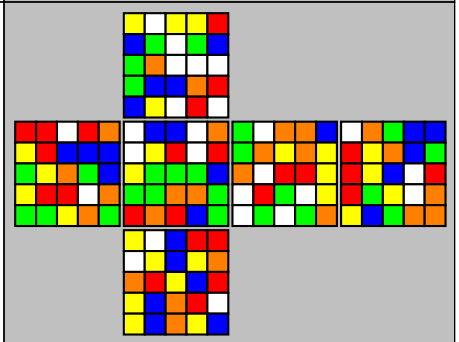
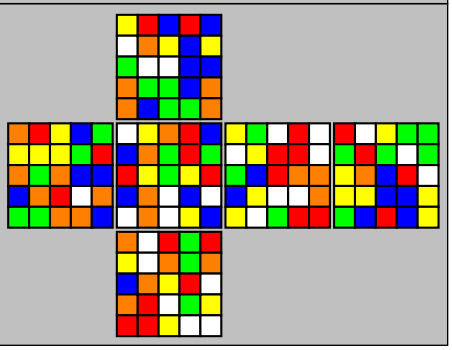
Scrambles for 2019-06-19

1.	U2 F' R2 U' R' U' R F' R' U R'	
2.	R U' F' R' F' U' R U' R F' R2	
3.	F' U2 R' U2 R' U2 R2 U' R2 F U'	
4.	R F' U' R' U R' U' F R' U2 F	
5.	R U R' F R2 U' R2 U R U2 R'	

Scrambles for 2019-06-19

1.	F' B2 L F2 L' Uw' U L' U Uw' L2 Fw' L Uw2 Rw' U Uw' L2 Uw B Fw U2 B' Fw2 Uw L' R2 Uw2 Rw' F2 Rw D' U' F' B Uw' F2 D' R2 D	
2.	Rw' Fw2 U2 F' Rw F' U' Uw' F' Fw2 Rw2 F2 U Rw L2 D2 Fw L2 B2 U' Fw2 B2 U' Rw R2 Fw2 Uw2 B2 F' Fw2 D2 R' L' B L' Rw R2 Fw2 F B	
3.	R2 D2 L' R' U2 Uw2 R' Uw U' B U2 L F2 B' R F' B' R Fw Rw2 Uw2 D U L' Fw Rw' B Uw' F Rw B' R' U B R Uw' U Rw2 Fw2 R	
4.	Rw L B2 D' B F' Rw' Fw' U' Uw2 B2 Uw' D2 R Rw' F B' Uw Fw' D2 R' D2 F' L' U Fw2 F' R' B' Rw' U2 F' U' D' Uw' R' U' F' Uw D2	
5.	R2 U2 B Rw' B Rw U Fw2 B2 Rw2 Uw Fw Rw2 R2 U2 Rw' F2 U F' R D' L2 D Uw2 L' Rw2 R' Fw' Rw2 F' D L2 B' L U F2 R2 L Fw Uw'	

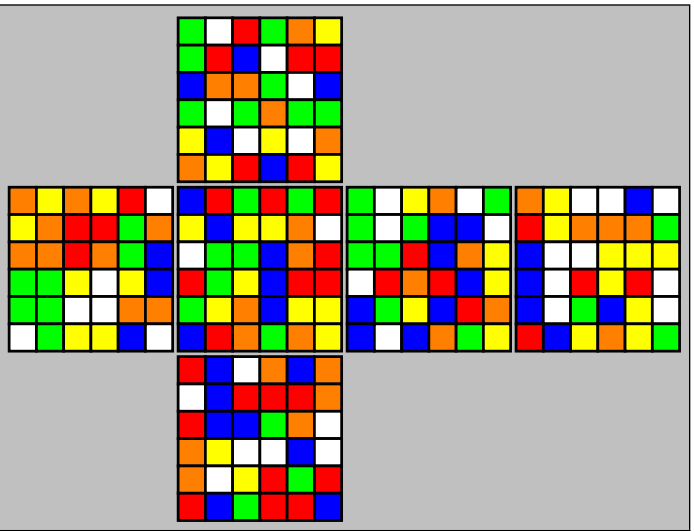
555
Scrambles for 2019-06-19

1.	Dw D' L' Fw2 F L Uw' U' Bw Fw Lw' Bw' R' F2 B2 Bw2 L2 Dw2 Rw Dw' B' D' Dw2 Rw Dw2 Rw' D U B U B2 U' Bw R2 Uw Dw' R Rw U D Bw Rw2 Fw R Lw Dw F R2 Bw' Uw2 F2 D U B' Rw Dw' Lw2 Dw' L2 F'	
2.	Dw' L2 F Lw Dw2 L' Lw2 R' F' D' F' L2 R2 B2 Rw Dw R' L' Bw' B2 F' Rw R U' Fw2 D2 U' R F Bw Rw Fw2 Lw' F U2 L B' Uw' Bw2 Rw' U' L' F2 U2 B2 D2 Fw D' Lw2 L' Bw' Dw' Uw Bw' D Fw' L' Lw B' U	
3.	Dw Lw L' Rw B2 F U Fw' Rw2 L Lw' F2 R Bw Dw' Uw U L' Rw Lw2 B' D' Lw2 B U' R2 Uw' U Bw Uw' Dw2 Fw L' Uw B' Fw' Rw D' Bw L' U Rw' Lw2 R F R' Dw B' R2 Uw2 L2 F2 Rw2 D' Uw Bw2 F' L2 R' Rw2	
4.	F Fw Bw2 Lw B2 F2 Rw' B2 Lw' D2 B' Rw' R2 Dw' L2 Bw B' Fw2 Rw' Fw' Uw Rw' Lw' Dw2 Fw' D' L Lw Rw' Bw' Lw' Dw Rw F Lw2 Fw2 B F' D' U2 B2 Bw' D' Fw Dw' Fw2 U' B2 Bw' L' Dw Rw' F' D' Bw' Fw2 L' U B' Dw'	
5.	Uw2 D' Lw' D2 U' L R2 B2 Uw' D' Lw Bw2 Rw' Fw Lw2 L2 R Dw2 D' Fw Lw2 U R2 Bw Fw2 R2 Uw' R2 Bw' L2 Dw' Lw2 L B2 Rw Lw2 R2 Dw2 D' Bw Rw Fw F' Uw Lw2 Dw' R' F' Uw R2 Lw B F' R' B D F2 Dw B' D'	

Scrambles for 2019-06-19

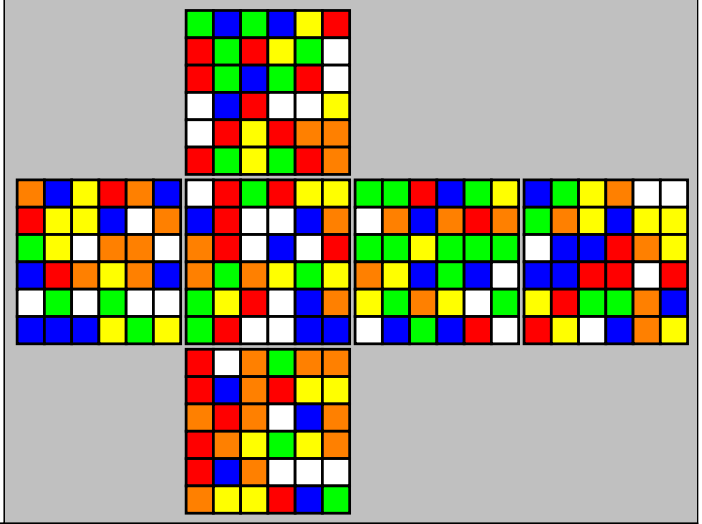
1.

D' F' 3Fw 3Uw' F2 R'
Rw2 Dw2 3Uw2 Fw' 3Rw 3Uw2
Dw2 D' Bw2 Fw2 Dw' Fw2
Uw' Rw' L' Fw' Lw2 L2
F' B 3Rw U2 Dw2 3Rw2
3Uw' Bw' 3Rw' L' 3Uw' U
Lw2 Bw' Lw' D L F'
R2 U' Uw' 3Uw' R2 3Uw
B' D Bw 3Fw Fw2 B'
U2 B' Rw' U' Lw2 Fw2
3Rw' Lw2 Rw Dw2 R' Dw
R' Rw' 3Uw' Lw' 3Uw 3Rw'
Lw2 Dw2 F D' B2 Rw2
Dw' Lw2



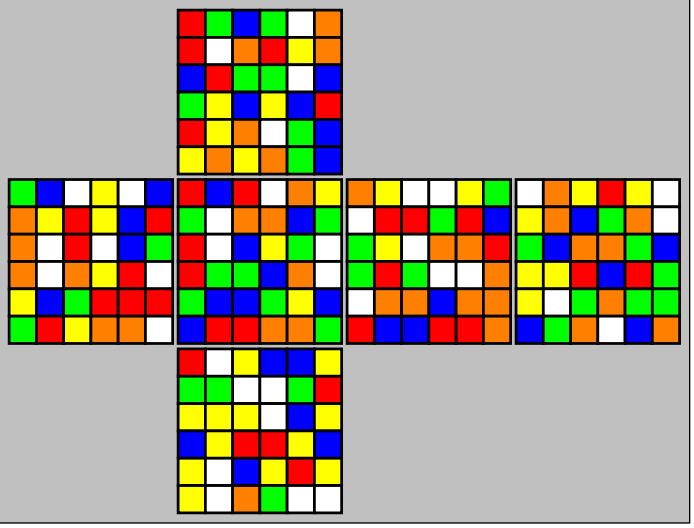
2.

3Uw Bw' 3Uw2 U 3Fw2 Dw'
Lw2 L2 Rw' Dw' D2 L'
3Uw' Lw2 3Fw2 B 3Uw2 F'
3Fw Fw' L2 Fw2 3Uw Lw
Rw L' Bw L' 3Uw' L
Dw2 3Uw 3Fw' F Rw' Uw
R2 F 3Rw2 D2 3Fw R
Uw' Rw 3Rw2 Dw2 U 3Uw2
B2 3Rw2 Lw' Bw2 B2 Rw'
B Fw' R Fw' L2 3Rw
3Uw' Dw' L Dw' L' D2
U 3Fw' Uw2 3Fw' 3Rw' Dw
3Rw' R2 3Uw' Uw' 3Fw2 Lw'
L' R



3.

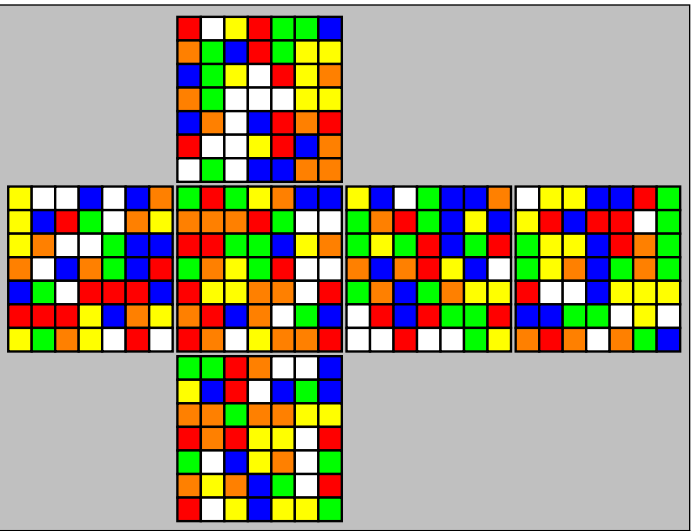
Fw 3Fw2 U 3Uw' Dw' 3Fw
3Rw F Bw2 L2 Dw' L'
U Rw 3Fw' Fw' F2 Dw
U' 3Fw2 F2 L2 Rw 3Uw'
F' 3Fw2 L F 3Rw2 3Uw
R L 3Uw' Dw' B Uw'
Lw F' 3Fw Fw Lw2 Fw
D' F2 3Uw2 Bw 3Uw' 3Rw
R2 Dw F' 3Rw2 B Rw2
3Rw Uw' 3Uw' 3Rw Lw2 D
L' Fw' Lw2 3Uw' Bw2 3Rw
B Fw F L 3Fw Lw
R' D2 F 3Uw Fw' R
D' L2



Scrambles for 2019-06-19

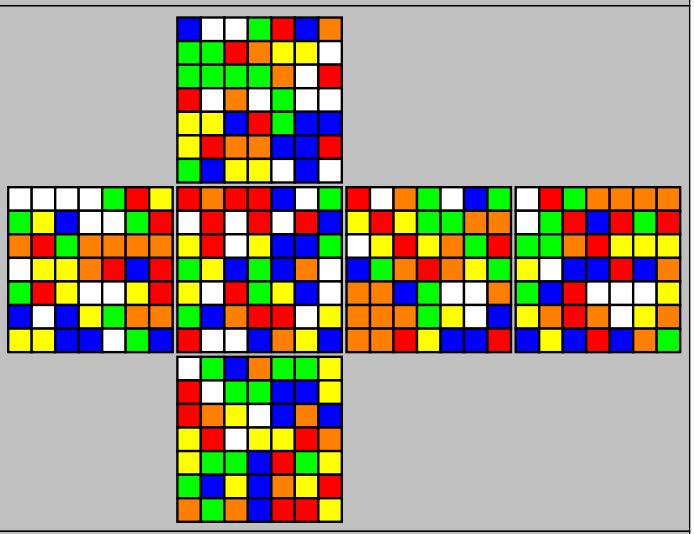
1.

U2 3Bw' R U' 3Lw' 3Rw' B
3Lw Lw2 F 3Rw D2 L2 Bw'
3Uw U' B L F2 3Lw' 3Dw
L2 R' B' Uw Dw2 3Fw' Bw
Uw' Rw2 Uw2 Fw Rw' B 3Uw'
Lw2 U' Lw2 3Dw Bw' Lw' 3Rw2
Bw' U' 3Lw2 Dw' Lw' 3Fw2 3Bw'
Rw2 3Bw' 3Rw2 Rw2 U R2 Lw2
Fw' R2 L2 Bw' 3Bw2 3Uw2 R
Lw 3Lw' 3Uw2 3Bw' 3Fw' 3Rw Dw2
3Rw2 D' R 3Rw 3Lw2 U 3Uw
Dw 3Bw' 3Lw' R' Rw B' F2
3Rw B L2 3Fw2 B' 3Bw2 L'
U Dw Lw 3Bw' 3Dw' 3Lw' B
3Lw Uw'



2.

3Uw2 Dw' U' B 3Dw Bw F
Fw2 3Dw 3Fw' 3Bw' Rw2 Lw 3Bw
U' Uw2 Rw' Bw' 3Bw' L' D2
Rw' 3Uw 3Rw U' Uw' F' 3Rw
F2 B Uw' Fw' 3Dw D2 B
Fw' Bw' Rw' 3Bw' R2 Dw' 3Rw
D2 3Fw U 3Bw' R' 3Fw 3Uw'
Rw' U 3Uw 3Lw2 Rw2 F2 3Lw2
R2 Dw' Bw2 Rw' F2 3Bw2 L
R' Fw Bw' L B L2 Uw'
R Uw' U' 3Dw2 Rw' 3Lw F2
R2 B' Fw' F2 3Rw L D2
3Fw2 B Fw2 Dw2 3Uw' Bw2 Rw'
Dw F' D2 3Fw2 U F L2
3Bw' Uw



3.

F D' L' Uw L' 3Bw U
3Uw 3Bw Fw2 Uw' U2 Lw' 3Rw
3Uw' 3Dw2 3Lw2 U2 3Uw' Fw D'
3Fw Dw 3Bw 3Lw2 F2 3Uw2 U2
3Rw' L2 D' 3Uw Bw F' 3Lw2
3Bw' Lw F' 3Uw 3Dw' 3Bw2 B
Lw B' D' F' Bw D' R2
3Uw Lw 3Fw Uw' 3Fw 3Dw2 Fw'
L Uw' Bw' B Lw2 Fw' Bw'
R' 3Uw B2 3Rw 3Uw2 R 3Dw
3Bw' U' Bw' U2 3Rw' L' D'
3Rw2 D B U Lw L Fw
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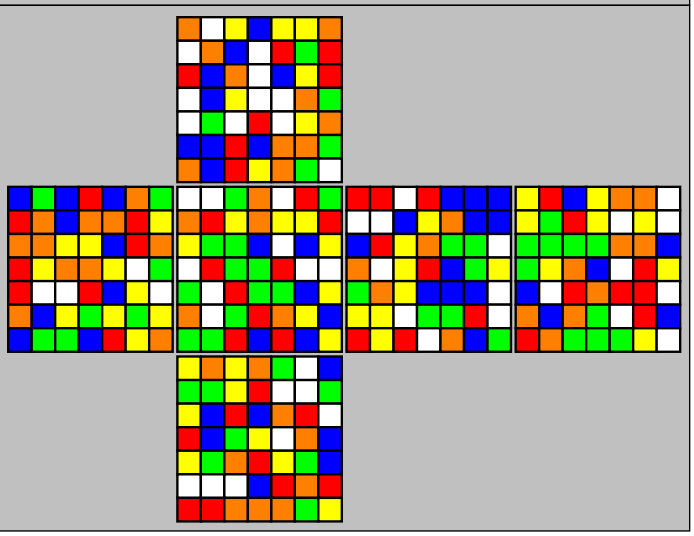
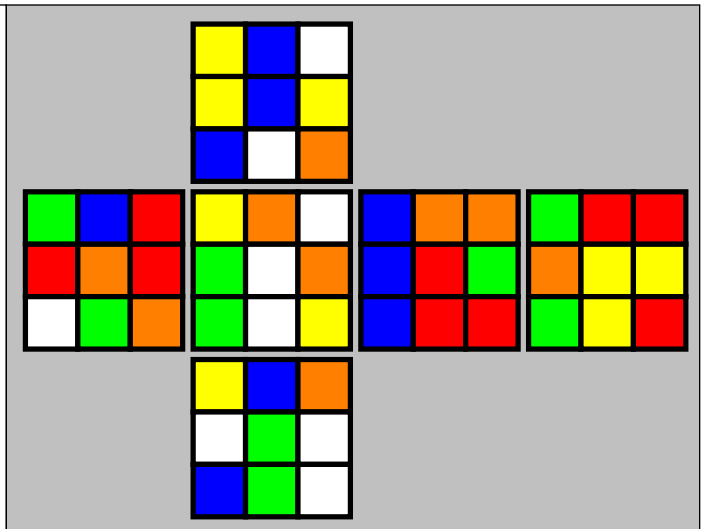
F' Fw2 3Fw 3Uw B 3Rw Bw
Lw' Dw'



333bf
Scrambles for 2019-06-19

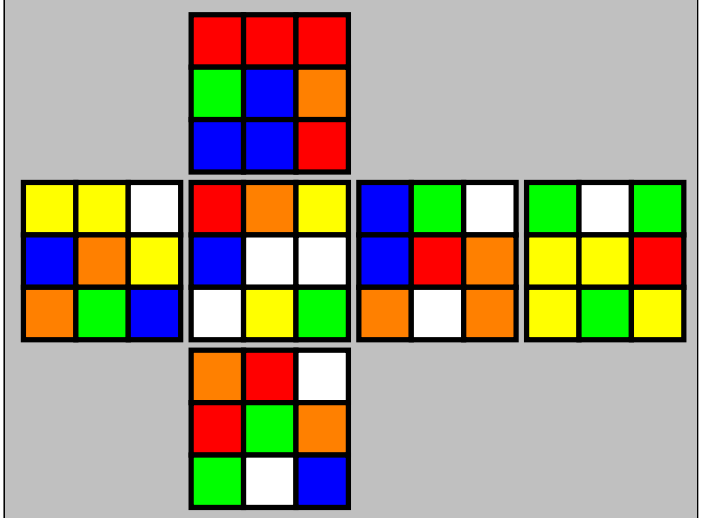
1.

D' R2 D R2
F2 U2 R2 B2
F' D2 L' D
F' L2 D' U
B L2 R' U
Rw'



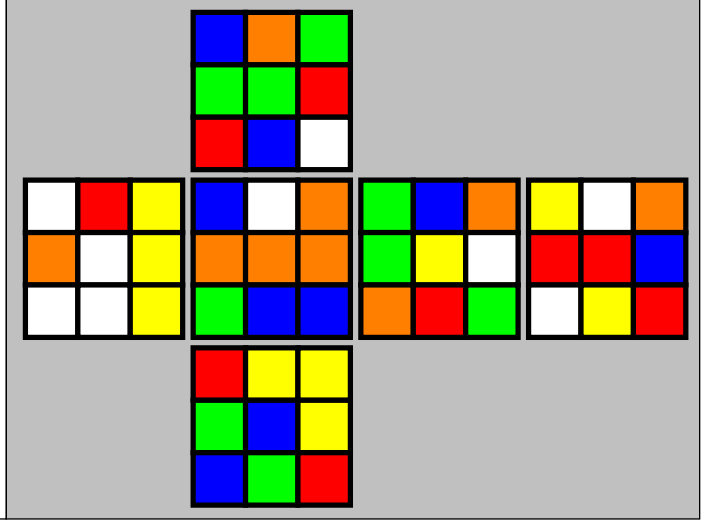
2.

D2 U' F2 R2
U' B2 R2 F2
R2 B' L F2
L U R' F'
D' U2 B' D2
Rw'



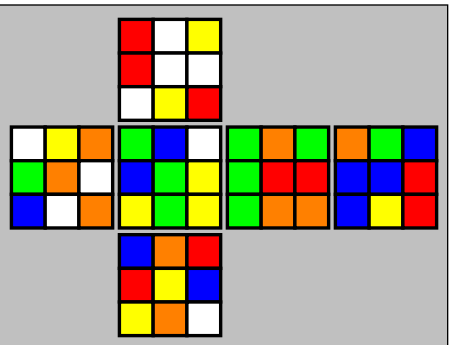
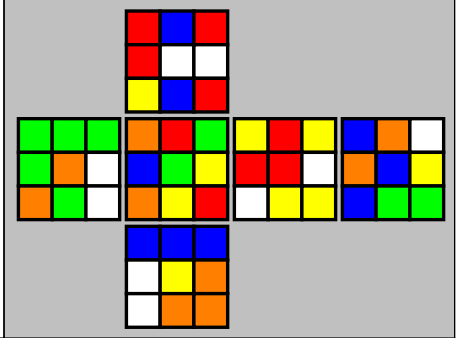
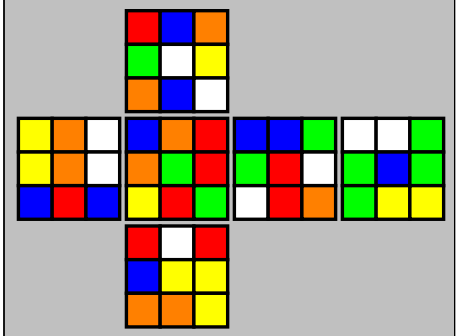
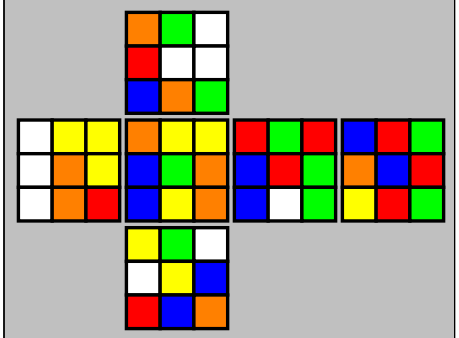
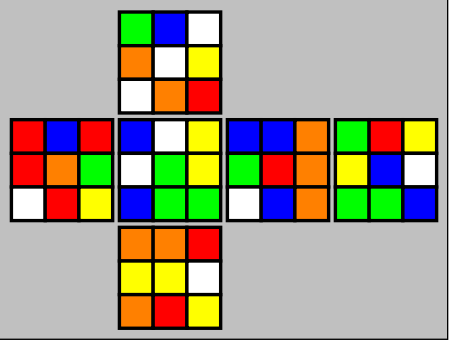
3.

B2 D2 R2 F'
L2 B U2 F2
D' R D2 L'
U2 F D' U'
F' U' F' Rw
Uw'

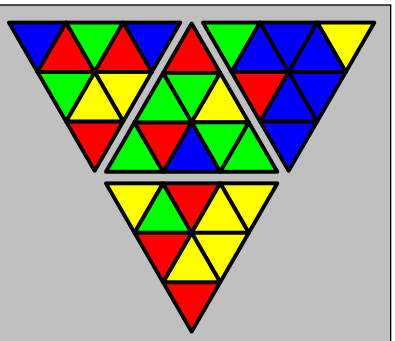
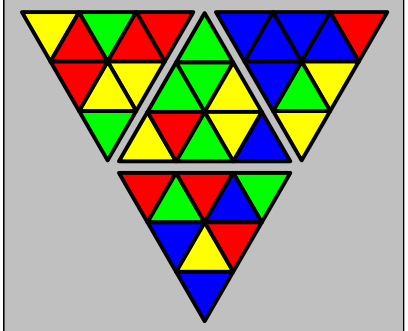
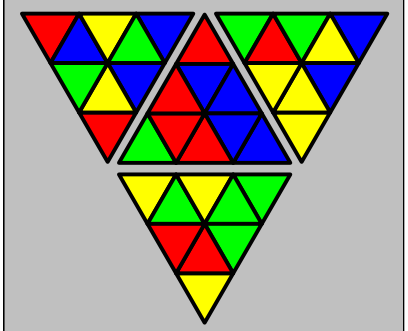
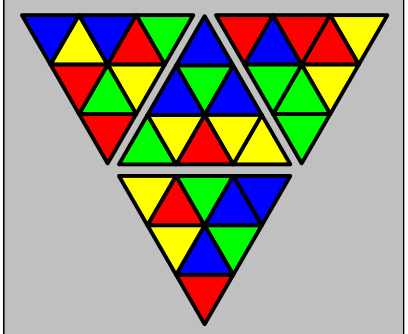
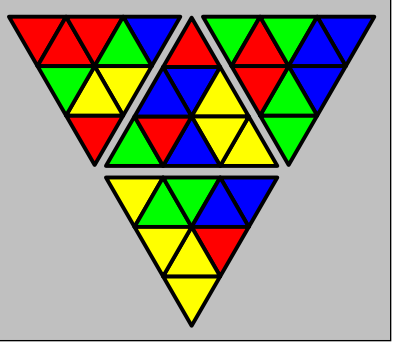


2019-06-19

333oh
Scrambles for 2019-06-19

1.	U' F' D' R U R' U F U' D L' F2 U2 F U2 D2 F2	
2.	R' D' B' U R L' B' L U2 F' L' U2 D2 F2 L U2 F2 L2	
3.	U2 F D2 R2 F2 L2 R2 F D' L' F' L' B' R B D2 U' L B2	
4.	F' L2 B R2 B' F U2 L2 F' U' L B D2 F2 R B2 D' R' U B'	
5.	F L2 U2 B U2 B2 L2 F D2 R' B L D' B R' D2 U' B2 F L	

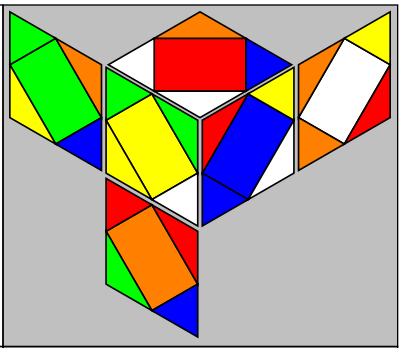
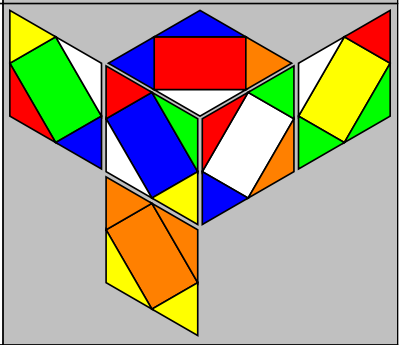
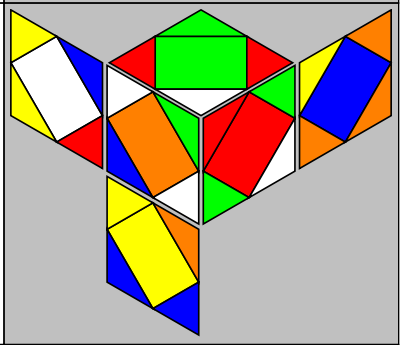
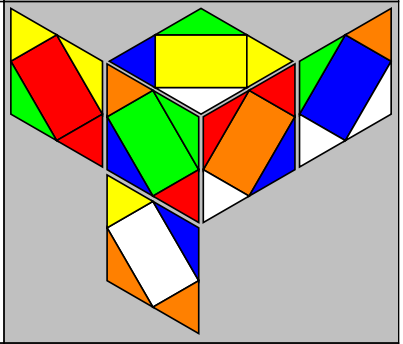
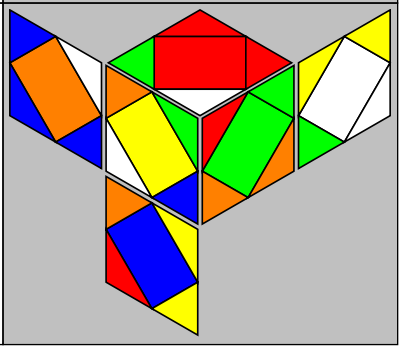
pyram
Scrambles for 2019-06-19

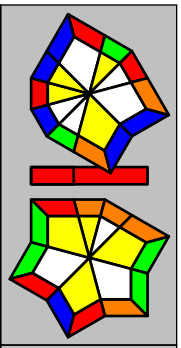
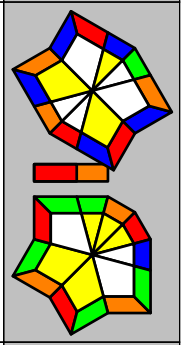
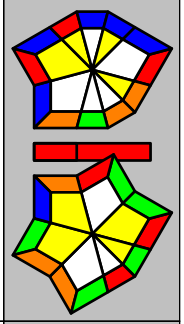
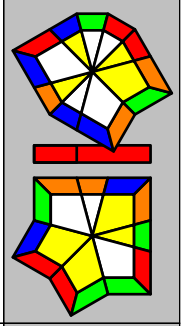
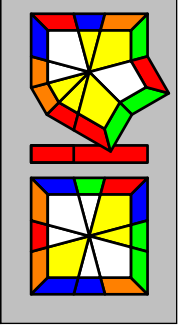
1.	U B L' R U' B' L R L' R L' u' l' b	
2.	L U' R L' U' R' U' B' R L B l r b'	
3.	L U L B R' U' R U' R' L' U' u l' b'	
4.	B' U L' B' L' R' U' L' B R' L' u l b'	
5.	R U' L' R' U L' B R U' B' U' u l'	

2019-06-19

skewb

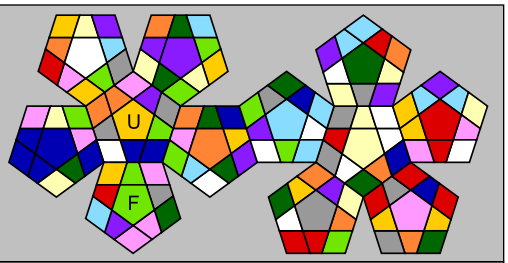
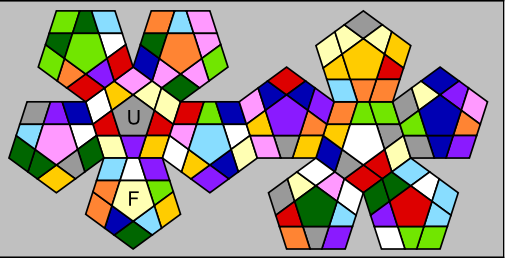
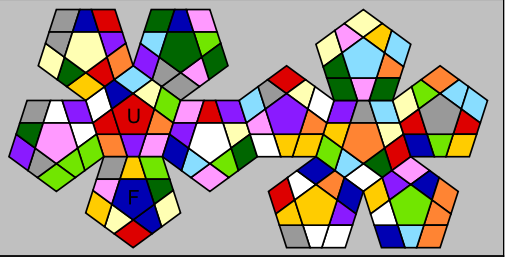
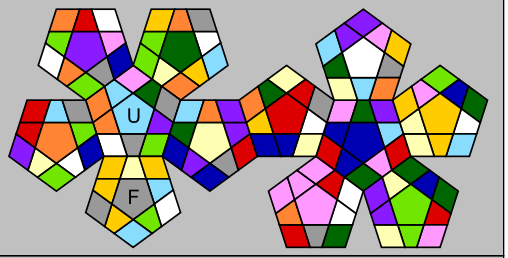
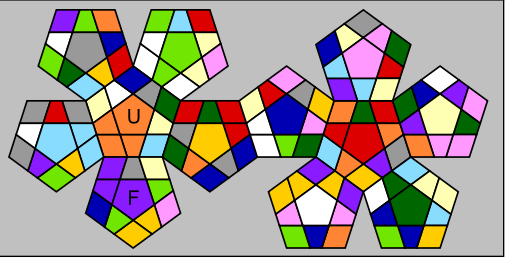
Scrambles for 2019-06-19

1.	U B U L R U B' R B' L R	
2.	R B L U B L' B' L U R L	
3.	B L U B' L R' U B' L' R U'	
4.	U L R U' B U' L' B R' U' L'	
5.	B U L' B R' B' R' U' R L' R	

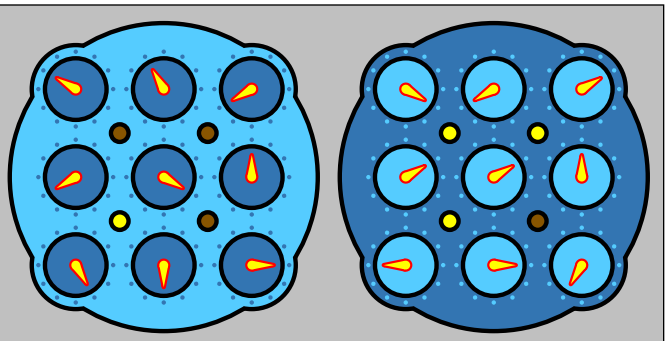
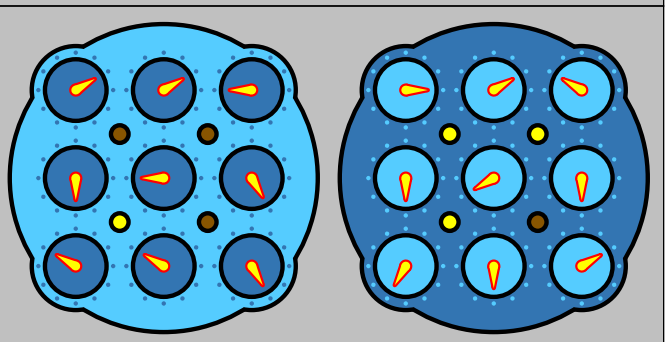
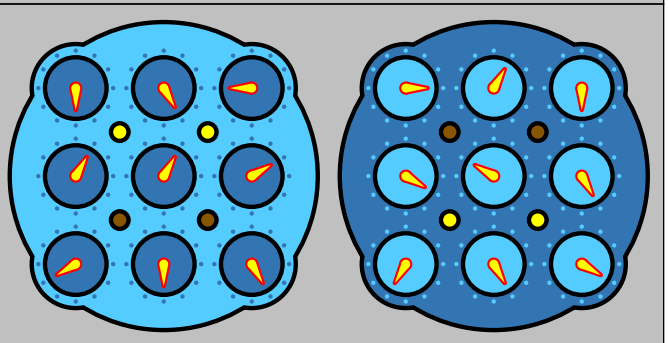
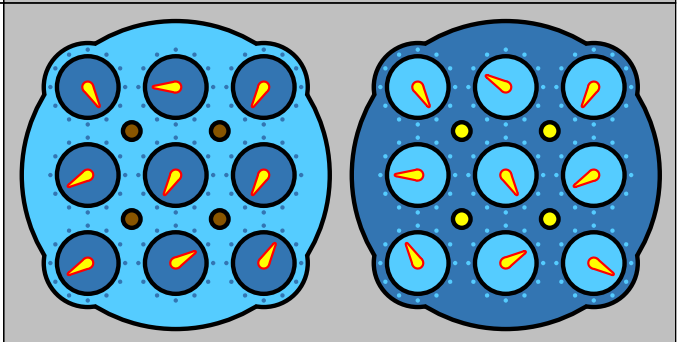
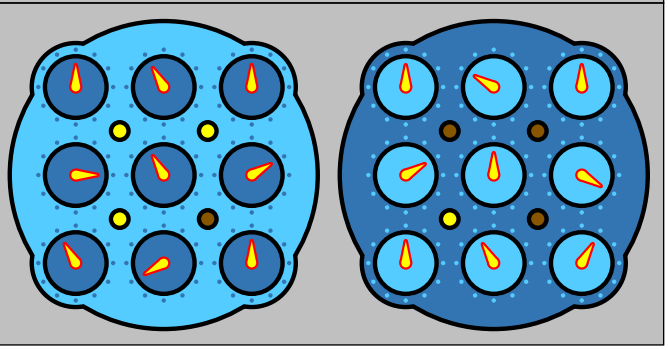
1.	(-5,0) / (0,-3) / (-3,-3) / (2,-1) / (-3,0) / (-5,-2) / (2,0) / (-3,-3) / (-4,-5) / (0,-2) / (6,0) / (0,-2) / (-2,0)	
2.	(0,-1) / (-3,3) / (0,3) / (1,-5) / (3,-3) / (3,0) / (-4,0) / (-3,-3) / (-3,-5) / (6,0) / (-1,0) / (-5,-4)	
3.	(0,5) / (4,1) / (-3,0) / (3,0) / (-4,-4) / (6,-3) / (1,0) / (0,-3) / (0,-3) / (-3,-5) / (-1,0) / (-4,0) / (5,-2)	
4.	(0,-1) / (0,3) / (-2,-5) / (0,-3) / (-1,-1) / (0,-3) / (1,0) / (3,0) / (2,-5) / (-4,0) / (-5,-4) / (6,0) / (-2,0)	
5.	(4,0) / (-4,5) / (-2,-2) / (-3,0) / (2,-1) / (0,-3) / (1,0) / (3,0) / (-4,0) / (-3,0) / (2,-3) / (1,-2) /	

2019-06-19

minx
Scrambles for 2019-06-19

1.	R++ D-- R++ D++ R++ D++ R-- D++ R++ D-- U' R-- D-- R-- D-- R-- D++ R++ D++ R-- D-- U' R++ D-- R++ D++ R++ D++ R-- D-- R-- D-- U' R-- D++ R-- D-- R++ D-- R++ D++ R-- D++ U R-- D-- R-- D-- R-- D++ R++ D-- R++ D-- U' R-- D-- R++ D++ R++ D++ R++ D-- R++ D-- U' R-- D-- R++ D++ R-- D-- R++ D++ R-- D-- U'	
2.	R-- D++ R-- D++ R++ D-- R-- D-- R++ D-- U' R-- D-- R-- D-- R-- D++ R++ D++ R++ D++ U R-- D++ R-- D++ R++ D++ R-- D++ R-- D-- U' R-- D-- R-- D++ R++ D-- R-- D++ R++ D-- U' R++ D-- R++ D++ R-- D++ R++ D-- R++ D-- U' R++ D-- R++ D-- R++ D-- R++ D-- R-- D-- U' R++ D++ R-- D-- R-- D++ R++ D-- R-- D-- U'	
3.	R-- D++ R++ D++ R++ D-- R++ D-- R++ D-- U' R-- D-- R-- D-- R++ D-- R-- D-- R-- D++ U R-- D++ R++ D++ R-- D++ R++ D-- R-- D-- U' R++ D++ R++ D-- R++ D-- R-- D-- R-- D++ U R++ D++ R++ D-- R-- D-- R-- D++ R-- D++ U R-- D-- R++ D-- R-- D-- R-- D++ R-- D++ U R++ D++ R++ D-- R-- D-- R++ D-- R++ D-- U'	
4.	R-- D-- R-- D-- R++ D++ R-- D++ R++ D-- U' R-- D-- R-- D++ R-- D-- R++ D-- R++ D-- U' R++ D-- R-- D-- R-- D-- R-- D++ R++ D++ U R-- D-- R++ D-- R-- D++ R++ D-- R++ D++ U R++ D-- R++ D++ R-- D-- R-- D++ R-- D++ U R-- D-- R++ D++ R++ D++ R++ D++ R++ D-- U' R-- D-- R-- D++ R++ D++ R++ D-- R++ D++ U	
5.	R-- D-- R-- D-- R-- D++ R++ D++ R-- D-- U' R-- D++ R++ D-- R++ D++ R++ D++ R-- D++ U R-- D++ R++ D-- R++ D++ R-- D++ R++ D++ U R-- D++ R-- D-- R-- D-- R++ D++ R++ D-- U' R++ D-- R++ D-- R-- D-- R++ D-- R-- D++ U R++ D++ R++ D++ R-- D++ R-- D-- R-- D-- U' R++ D-- R-- D++ R++ D-- R++ D++ R-- D++ U	

clock
Scrambles for 2019-06-19

1.	UR4- DR3+ DL1- UL4+ U1- R1+ D4+ L1- ALL3- y2 U2- R4- D5+ L4+ ALL1+ DL	
2.	UR3- DR1+ DL3- UL5+ U0+ R4+ D4- L0+ ALL4- y2 U1- R3+ D5- L4+ ALL4- DL	
3.	UR3+ DR2+ DL3+ UL2- U4+ R1+ D4+ L4+ ALL3+ y2 U5- R0+ D4- L1- ALL1- UR UL	
4.	UR5- DR0+ DL4+ UL2+ U6+ R1+ D3+ L3+ ALL3+ y2 U5+ R1- D2- L0+ ALL5+	
5.	UR2- DR2+ DL1+ UL2- U5+ R2- D1- L3- ALL2+ y2 U3+ R4- D0+ L3- ALL3+ UR DL UL	

Fewest Moves

-> You have 60 minutes to find and write a solution.
-> Write 1 move per bar. To delete a move, clearly blacken it.
-> Your solution must not be directly derived from any part of the scrambling algorithm.
-> Your solution must be at most 80 moves, including rotations.
-> Your result will be counted in OBTM.
-> Only use notation from Article 12 of the WCA Regulations. If you are uncertain, use only the exact moves listed here:

Face Moves						
Clockwise	F	R	U	B	L	D
Counter-clockwise	F'	R'	U'	B'	L'	D'
Double	F2	R2	U2	B2	L2	D2
Rotations						
Clockwise	[f]	[r]	[u]	[b]	[l]	[d]
Counter-clockwise	[f']	[r']	[u']	[b']	[l']	[d']
Double	[f2]	[r2]	[u2]	[b2]	[l2]	[d2]

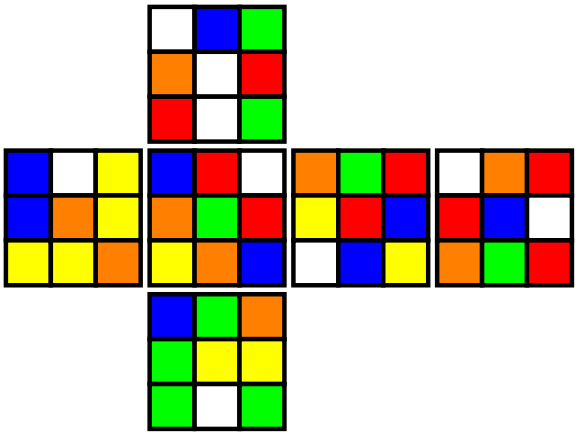
Scrambles for 2019-06-19
333fm

Competitor: _____

WCA ID: __ __ __ __ __ __ __ __ __ __

DO NOT FILL IF YOU ARE THE COMPETITOR.

Graded by: _____ Result: ____



Scramble: R' U' F L2 F2 D' F2 D' L2 D' R2 B2 L D' R2 B2 U R2 F' L F D2 R' U' F

____	____	____	____	____	____	____	____	____	____
____	____	____	____	____	____	____	____	____	____
____	____	____	____	____	____	____	____	____	____
____	____	____	____	____	____	____	____	____	____
____	____	____	____	____	____	____	____	____	____
____	____	____	____	____	____	____	____	____	____
____	____	____	____	____	____	____	____	____	____
____	____	____	____	____	____	____	____	____	____

Fewest Moves

-> You have 60 minutes to find and write a solution.
-> Write 1 move per bar. To delete a move, clearly blacken it.
-> Your solution must not be directly derived from any part of the scrambling algorithm.
-> Your solution must be at most 80 moves, including rotations.
-> Your result will be counted in OBTM.
-> Only use notation from Article 12 of the WCA Regulations. If you are uncertain, use only the exact moves listed here:

Face Moves						
Clockwise	F	R	U	B	L	D
Counter-clockwise	F'	R'	U'	B'	L'	D'
Double	F2	R2	U2	B2	L2	D2
Rotations						
Clockwise	[f]	[r]	[u]	[b]	[l]	[d]
Counter-clockwise	[f']	[r']	[u']	[b']	[l']	[d']
Double	[f2]	[r2]	[u2]	[b2]	[l2]	[d2]

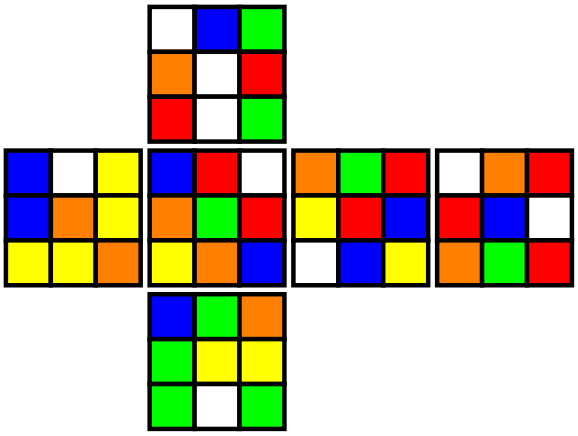
Scrambles for 2019-06-19
333fm

Competitor: _____

WCA ID: __ __ __ __ __ __ __ __ __ __

DO NOT FILL IF YOU ARE THE COMPETITOR.

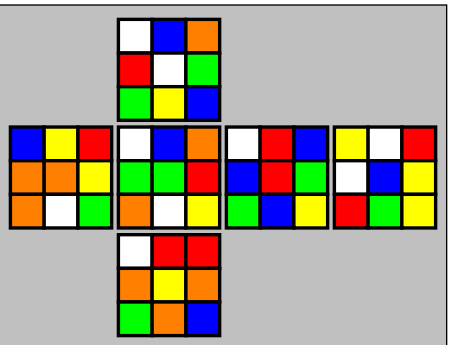
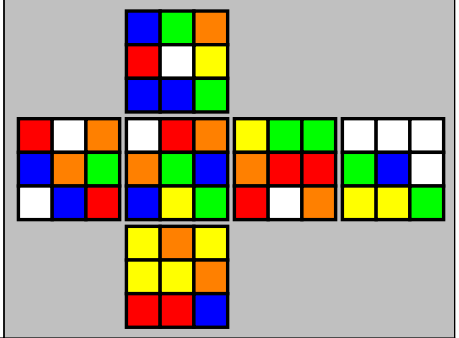
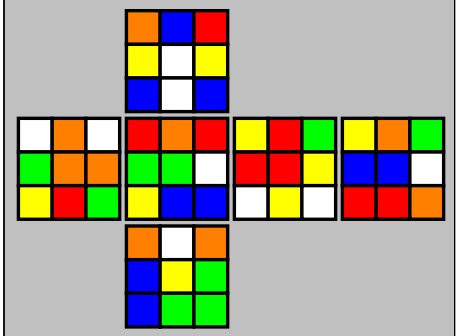
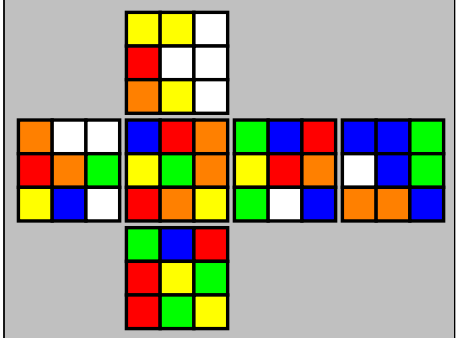
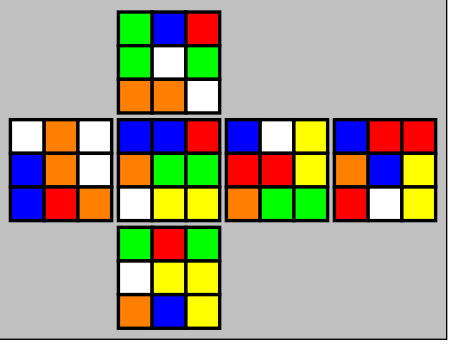
Graded by: _____ Result: ____



Scramble: R' U' F L2 F2 D' F2 D' L2 D' R2 B2 L D' R2 B2 U R2 F' L F D2 R' U' F

____	____	____	____	____	____	____	____	____	____
____	____	____	____	____	____	____	____	____	____
____	____	____	____	____	____	____	____	____	____
____	____	____	____	____	____	____	____	____	____
____	____	____	____	____	____	____	____	____	____
____	____	____	____	____	____	____	____	____	____
____	____	____	____	____	____	____	____	____	____
____	____	____	____	____	____	____	____	____	____

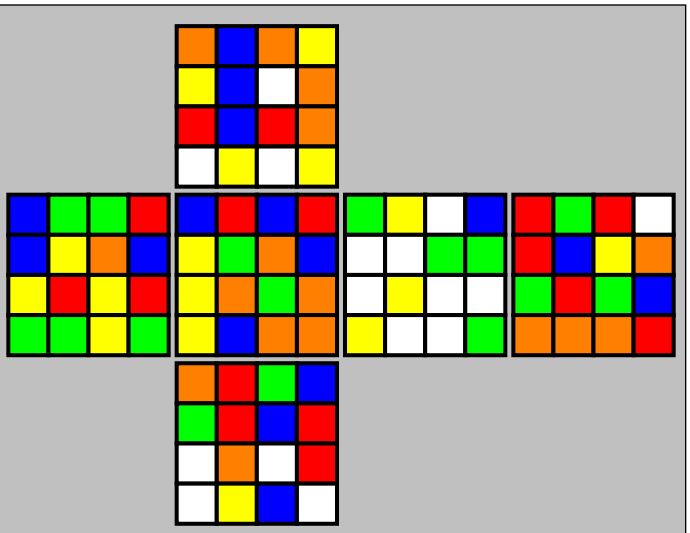
333ft
Scrambles for 2019-06-19

1.	R B2 R B2 U2 R2 U2 F2 L2 D' B2 F U2 R2 B' D2 L F U R'	
2.	L2 F D2 B' F' L2 B2 U2 R' B D' F D' R D' L F U R2	
3.	D' R F' L F R U' R D' B' D2 R2 B2 D L2 D' F2 L2 D2 B2	
4.	L U2 B' U' D F U2 R' F U2 R2 D2 B' L2 B U2 F2 B' D2	
5.	R2 B2 L2 R2 D2 R2 F2 U F2 L F U2 B D2 U2 B R D B2 D'	

444bf
Scrambles for 2019-06-19

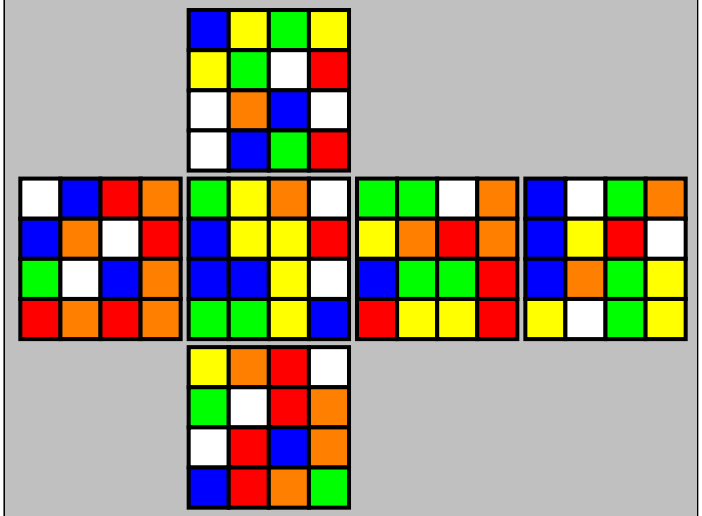
1.

L2 B2 R2 U2 R
D2 L U2 B2 F2
R D' F' U2 R
B R2 D L2 D
F2 Rw2 Uw2 F R'
Fw2 Uw2 F B' L2
F2 U2 R Uw2 U
F' Uw' Rw2 D' Fw'
Uw F R Fw' U
Rw' B' y



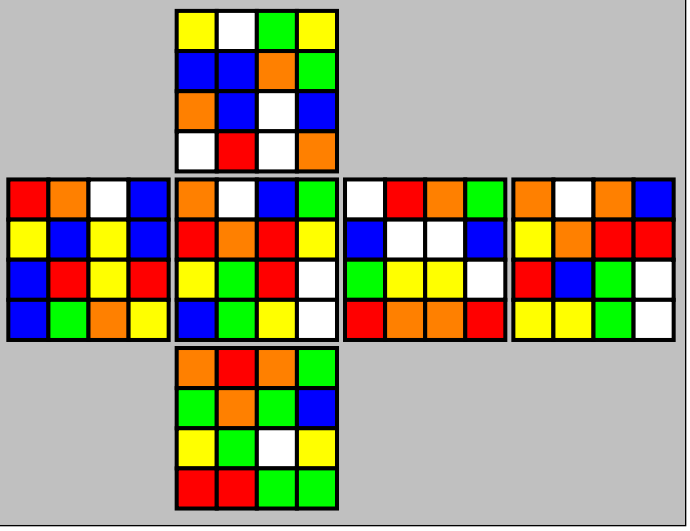
2.

F2 L2 F2 L2 F2
D R2 D2 R2 F2
L2 R B2 R D
F L2 R' D2 U
F' Rw2 Uw2 B' Uw2
F D2 L Fw2 B2
L R' B' F2 Uw'
Rw2 F' U' Rw2 Fw
U2 Rw Fw2 L' B'
x y



3.

U2 F2 L2 F' R2
F L2 D2 U2 F2
D2 U' F' D2 R'
L2 D F' R' B
U' Fw2 U Fw2 B2
U B2 Rw2 B Uw2
U B U2 B2 Rw'
B' D' Rw' Uw2 Rw
F' Uw' Fw' Uw U
L y

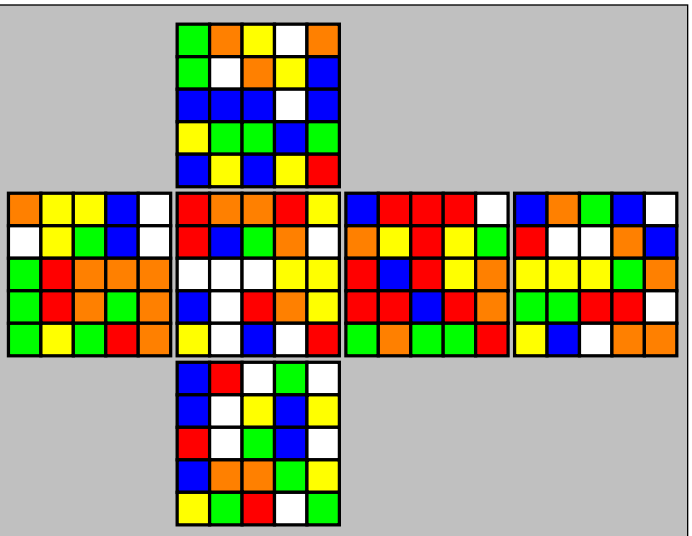


2019-06-19

555bf
Scrambles for 2019-06-19

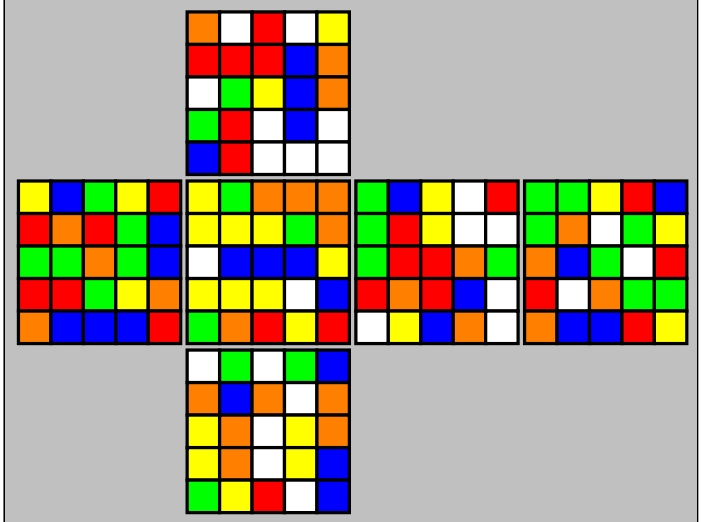
1.

F' Rw' Bw2 D' Uw'
R' D Bw Rw B2
Bw2 Fw2 R' Lw2 U'
D' Lw' R' Rw' L2
B2 D Bw U2 F'
Dw Uw2 R' Fw F
B Bw2 Rw2 R' F
Rw Bw2 Uw' L D2
Lw F' D2 F2 Lw'
Fw Bw B2 Rw2 Lw2
D2 Uw' Lw R2 L'
D2 U2 B Rw2 Dw2
3Rw'



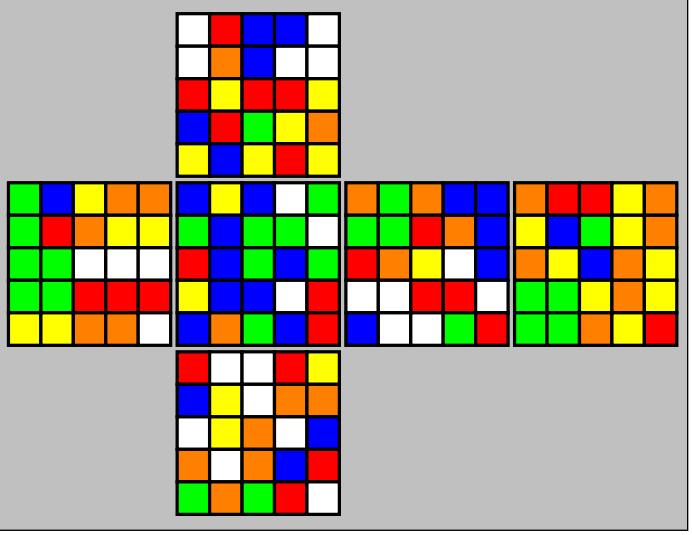
2.

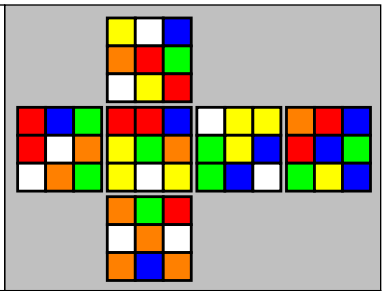
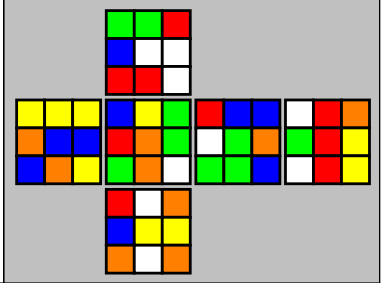
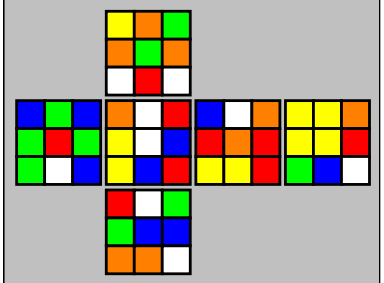
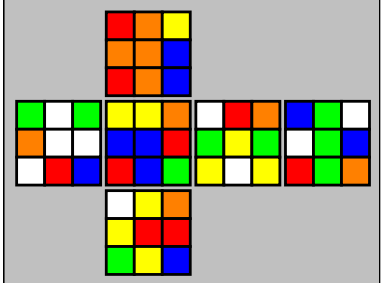
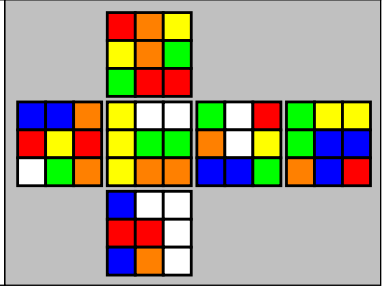
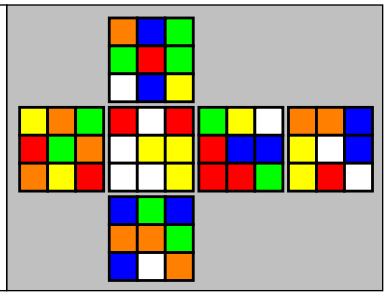
B2 R Rw2 D2 L2
U F' Fw R2 F2
Uw' F2 Fw' B2 Dw2
D2 Lw' Fw2 Bw B2
F Rw2 Fw' Uw Dw2
Lw' Fw' Bw2 D' R'
Uw' B' Dw' U2 Lw'
Dw L2 F2 Lw' U2
Fw' Lw2 L Uw2 U2
Fw Uw' Bw' R B2
Fw Dw' R U D2
L2 Bw' F Rw Uw2
3Rw2



3.

B2 F2 Fw' L2 Bw'
Lw' Bw L' Fw' Lw2
Dw R2 Fw Lw Dw'
F2 L Fw Dw2 B
Dw2 F2 Lw2 D2 Bw'
F U2 R2 D' Lw'
D2 Dw2 Bw Lw' Bw'
R' D Lw' Bw' B'
R L' B D Lw
Bw' F Fw Lw L
D L' Bw2 Rw2 U
L' Dw2 R Rw2 Dw2
3Fw'



1.	L2 U2 R2 B L2 D2 F' U2 F2 R2 U' B2 L' R B2 F D' L2 R2 D R2 Fw'	
2.	B' R2 B L2 U2 B2 D2 R2 F2 U F' D B2 R' B2 R2 B D2 F' L Uw'	
3.	B2 U2 R2 U2 B D2 B' R2 U2 F2 D2 R' D' F2 L2 F D L' B L' U' Rw Uw2	
4.	D2 R2 D2 B R2 B D2 L2 B2 L' B2 U L2 F' L B R2 F D2 Fw Uw2	
5.	U' R2 B2 F2 D L2 D' B2 L' B L B2 U2 L F2 D2 B' F L2 Fw	

6.	D B2 U B2 L2 D R2 D' F2 R2 U2 L R2 D B' F U' F2 U' F' D Fw' Uw