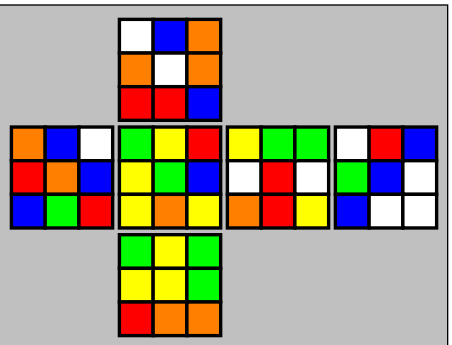
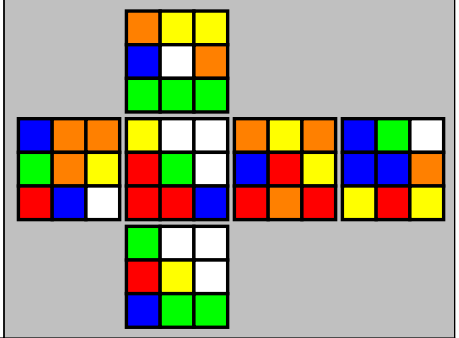
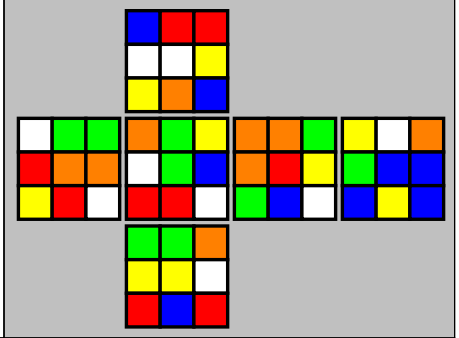
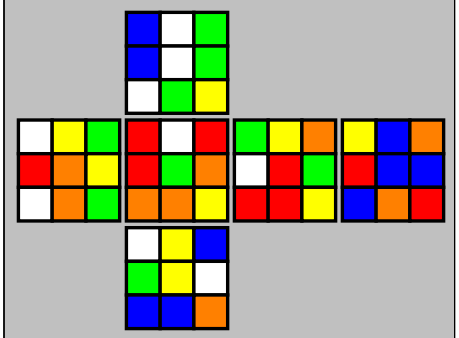
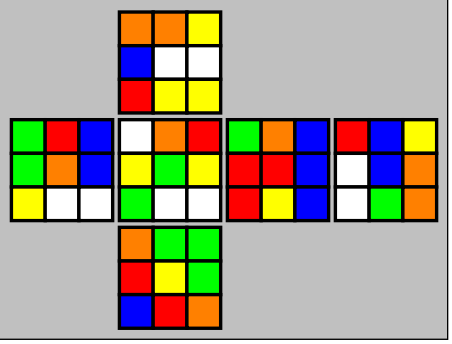
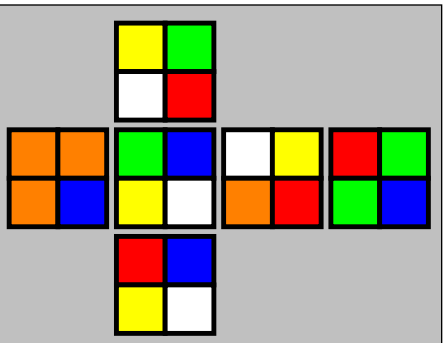
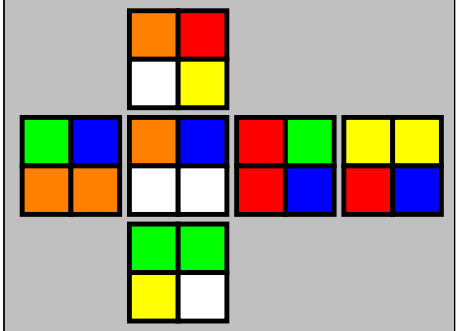
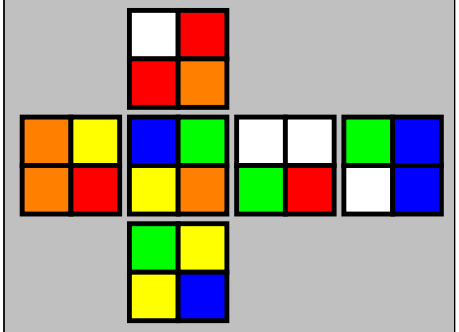
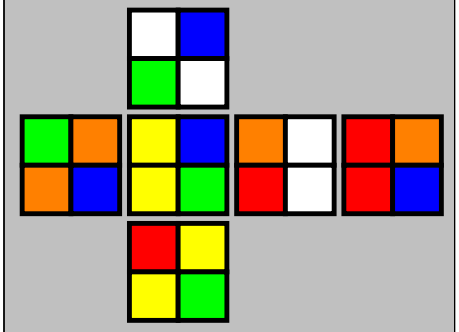
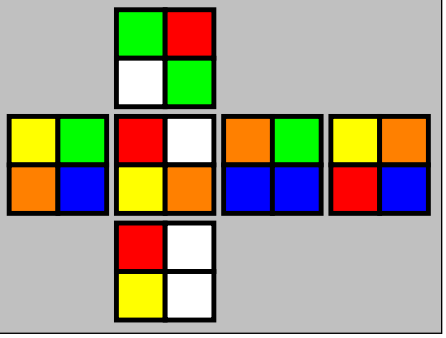
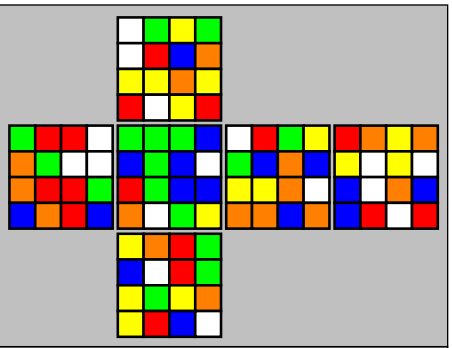
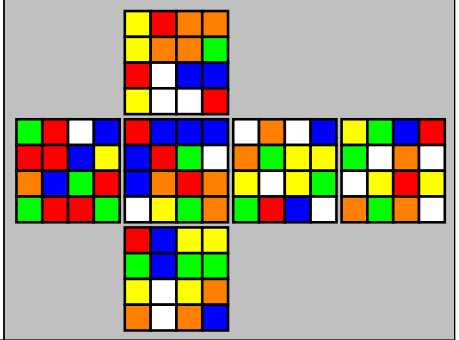
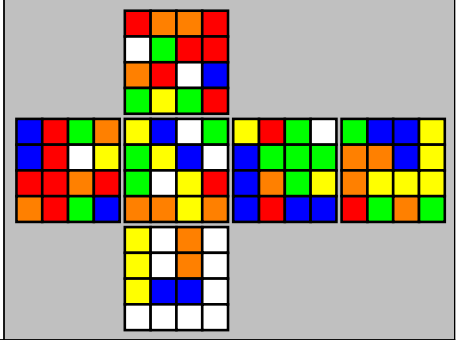
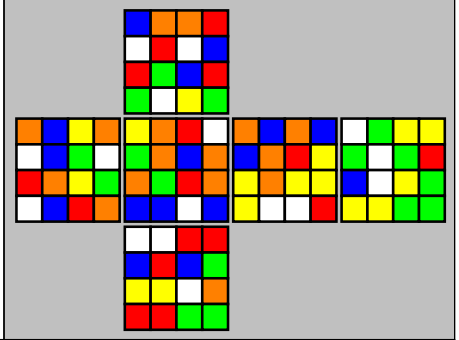
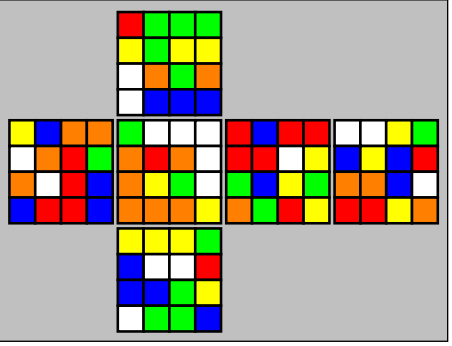
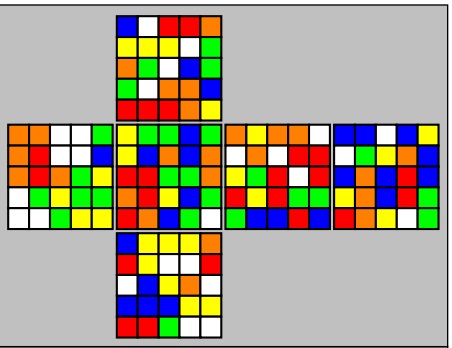
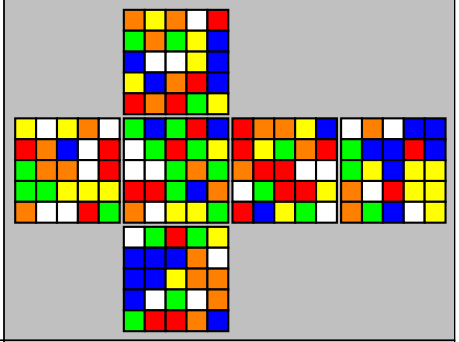
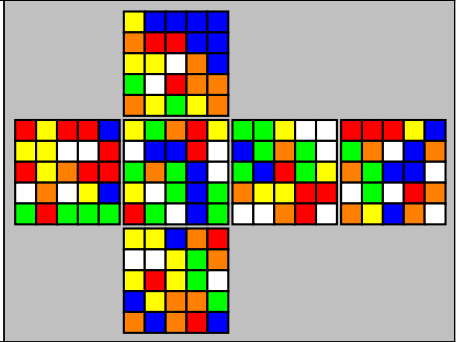
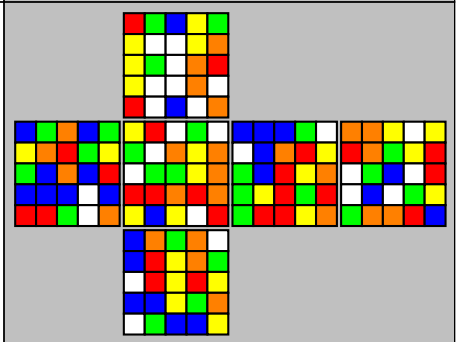
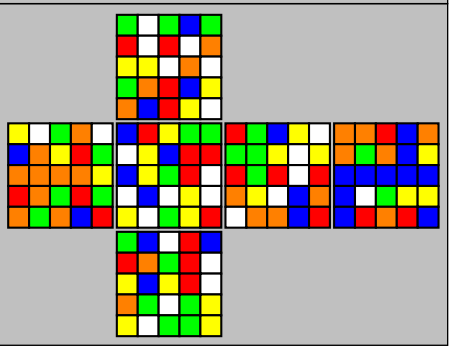
1.	U2 F2 R' B' D2 R2 L U B' U B2 D F2 R2 B2 R2 U' F2 R2 U	
2.	F2 D' L2 D' R2 B2 L2 D' L2 U2 L' D' F2 U' R B' D2 U F' D'	
3.	R U2 L' D2 U2 B2 L F2 L' U' R U' B L' B' D' U2 B' L2	
4.	F2 U2 L D2 L' D2 R2 B2 D' F' R F D2 R U2 F' D' L' R2	
5.	L' B2 L' U2 B2 U2 F2 L' D2 R' F L' U' R2 D R B' F2 L B2	

Scrambles for 2019-06-13

1.	R2 U' F U' R2 U R' F U' F R	
2.	U' R F' R2 F2 U' R2 U' R2 U F'	
3.	U R F' U2 R2 U' F2 R2 F' U2 R'	
4.	R' F2 R U R' F U' F U' F' R	
5.	U R' F' U' R2 U' F' R' U R' U2	

Scrambles for 2019-06-13

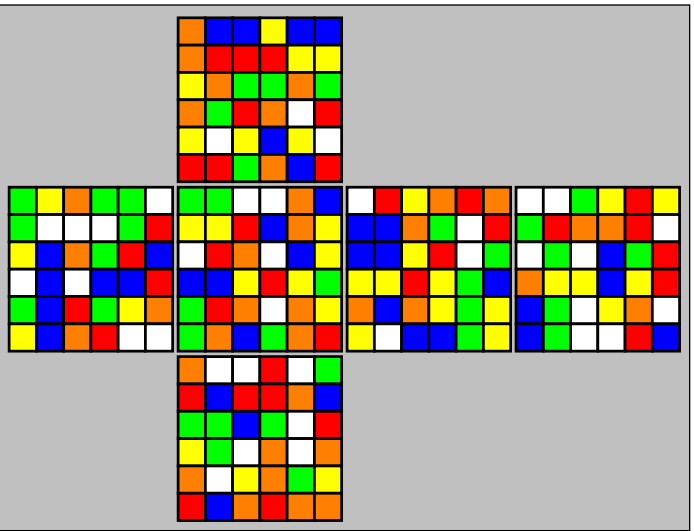
1.	F2 L2 F Fw' R2 D' Uw U2 Fw B' R Fw' L' U' R' Rw' D2 Rw2 F2 L F Rw L F Rw' Uw2 F2 U' F' Rw Uw R' Rw2 B2 D' R' U R2 Uw L2	
2.	Rw2 L' D Rw Fw2 Rw Fw' Uw2 Rw2 U' R2 Uw' B Rw' U2 Uw2 R2 B2 Uw Rw Uw' L' R' B R' Uw' U2 L2 Rw' Fw2 B' R2 Uw B' Fw F2 Uw B2 Rw' L'	
3.	U' Uw' Fw' R Rw F Fw R' L' Uw L2 D' Uw'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

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

Scrambles for 2019-06-13

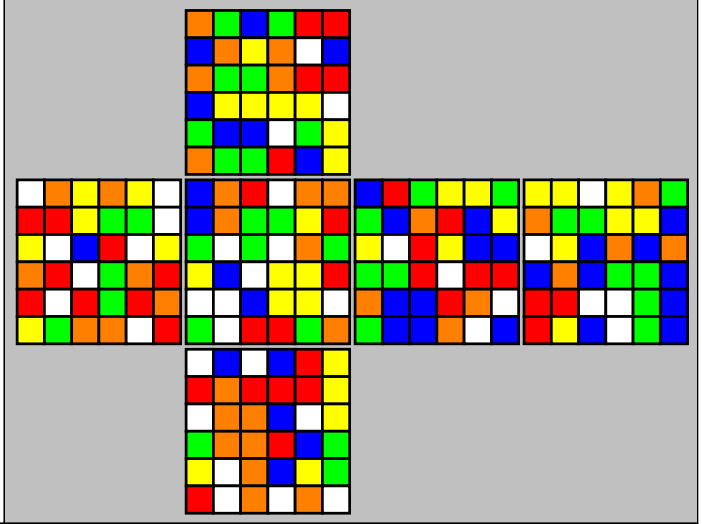
1.

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



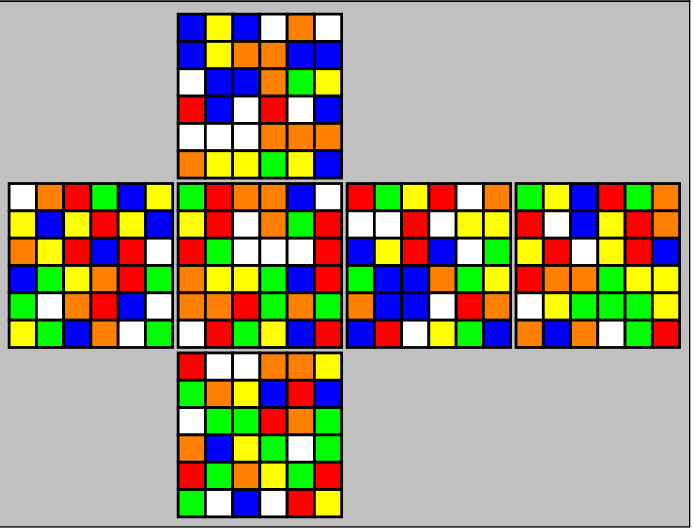
2.

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



3.

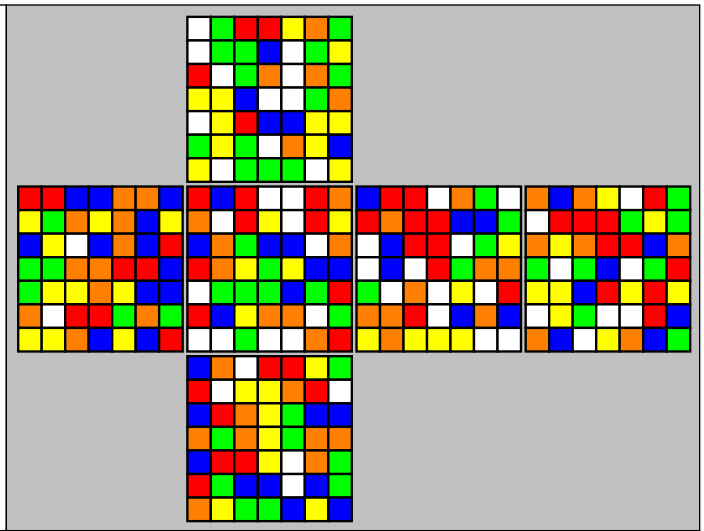
L' 3Rw2 3Uw' F Fw' 3Uw2
Dw U' R Fw' L2 Rw
U' Bw2 3Rw B' 3Fw' 3Uw2
R2 3Rw2 Dw' 3Fw' L2 Bw2
U Uw D 3Fw2 Dw 3Fw2
U' Lw' D' Dw2 Fw U'
Uw2 Rw2 Dw2 Fw2 B' U'
Lw' B' Bw' 3Rw R Dw'
Fw Bw Rw' U2 F D'
F Rw 3Fw2 L Lw B2
Rw U2 Uw' 3Rw2 U Bw'
R2 U' D 3Fw' Bw2 R
Bw2 L' 3Fw U2 B' Uw'
F Rw



Scrambles for 2019-06-13

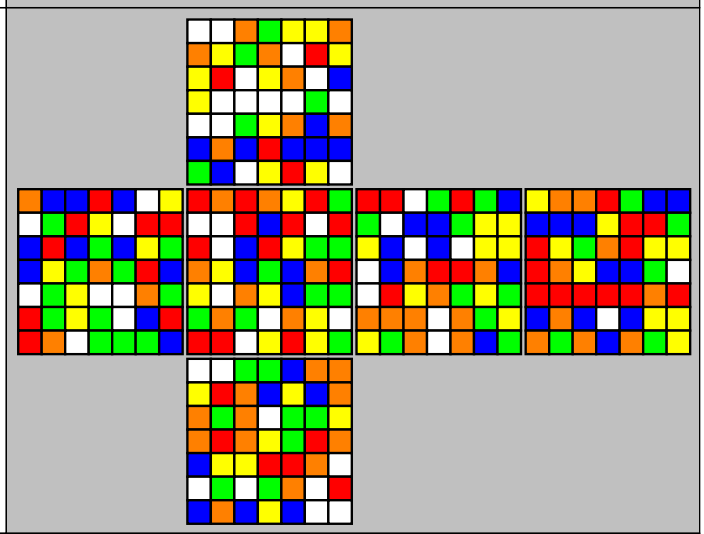
1.

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



2.

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



3.

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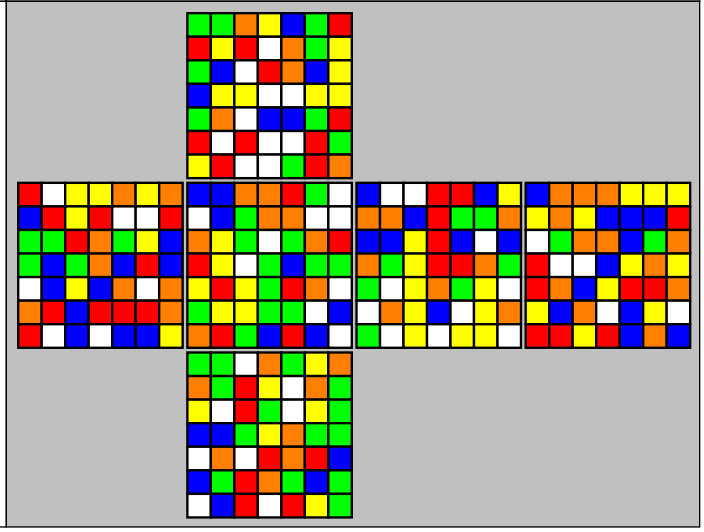
3Fw Dw



333bf
Scrambles for 2019-06-13

1.

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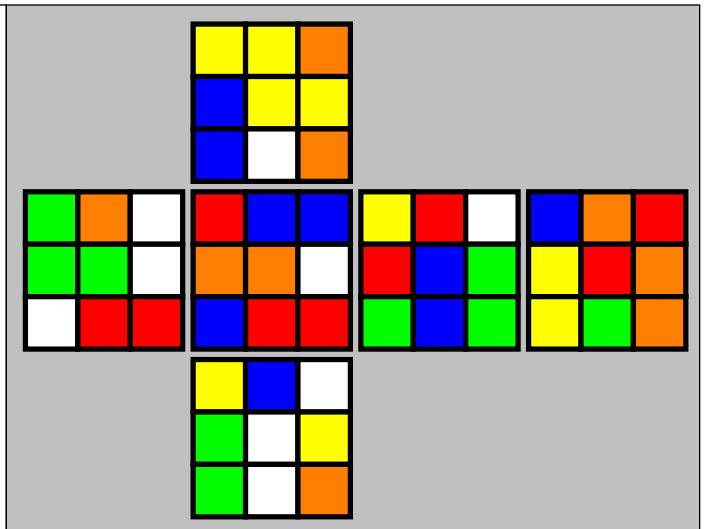
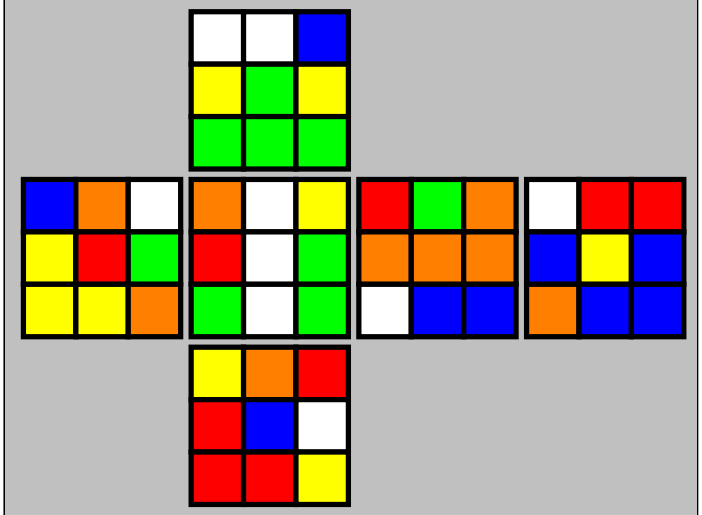
R' D2 U2 L'
D F U2 L2
F' D R B
U2 F U Rw2
Uw'



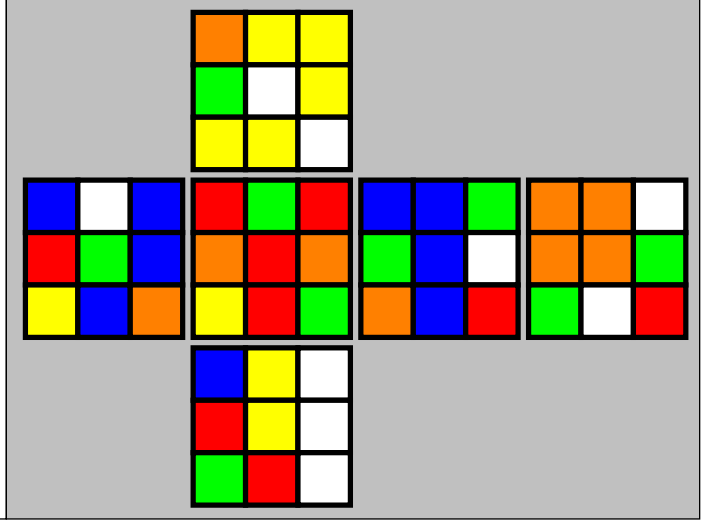
2.

D U2 R2 B2
D' L2 F2 L
B F2 D2 L'
U' F R2 U'
R' F' Rw Uw2



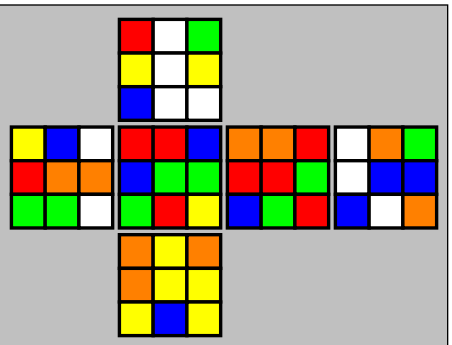
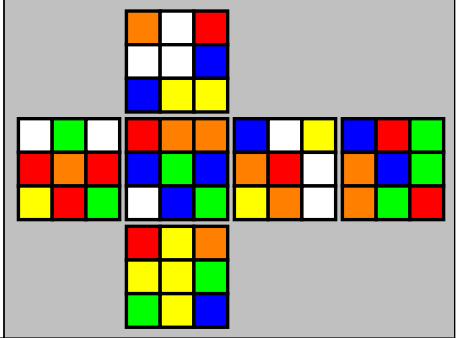
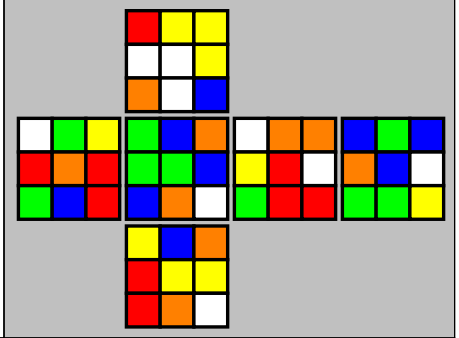
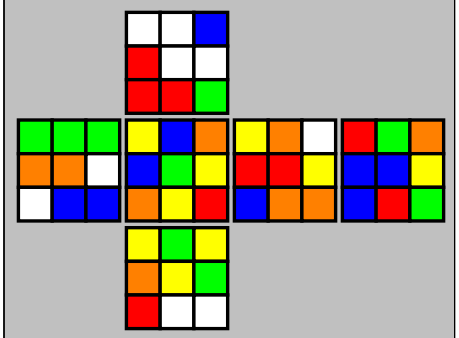
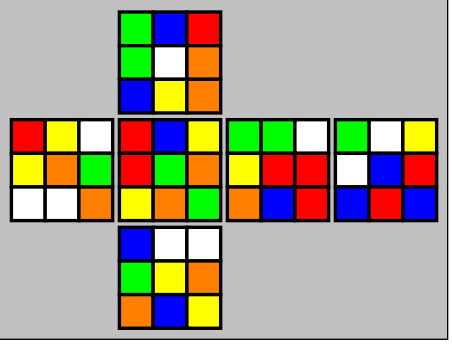
3.

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

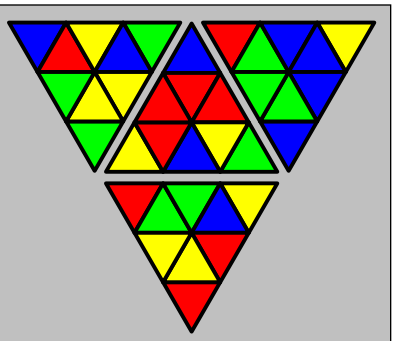
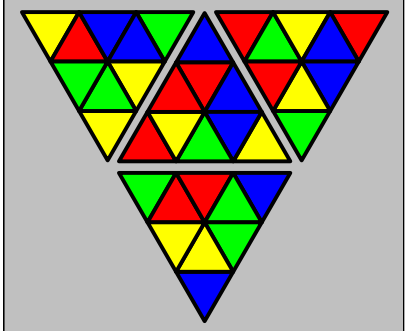
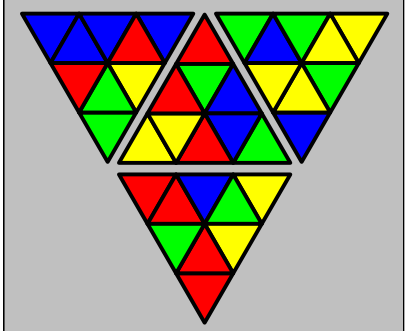
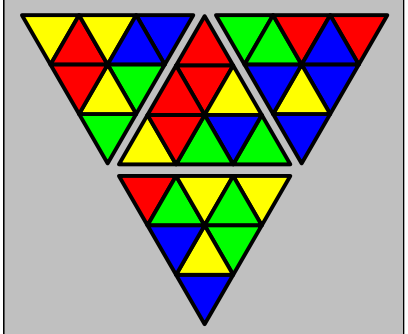
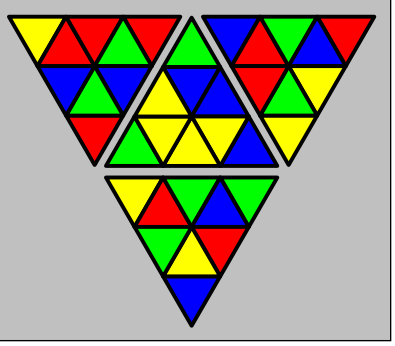


2019-06-13

333oh
Scrambles for 2019-06-13

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

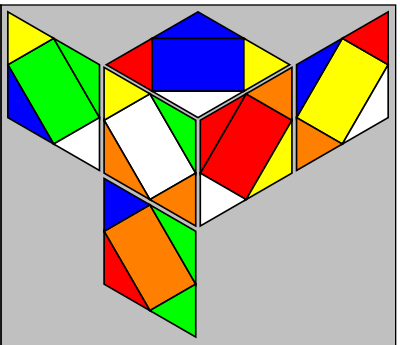
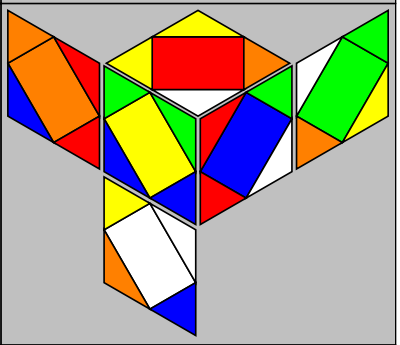
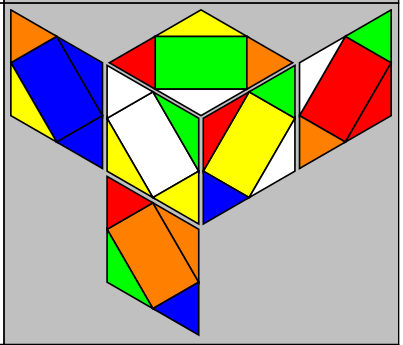
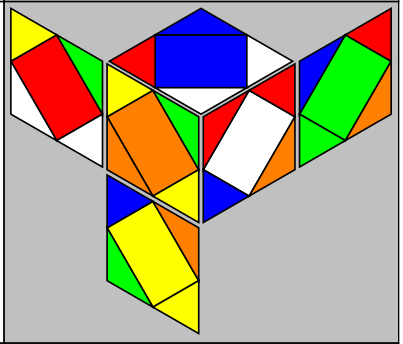
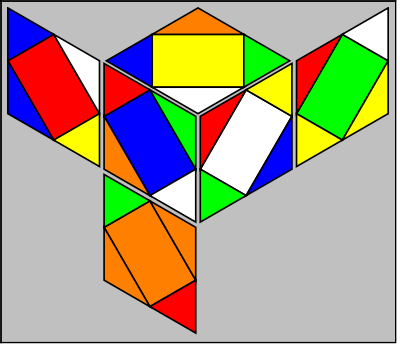
pyram
Scrambles for 2019-06-13

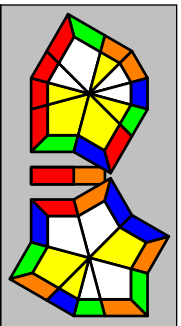
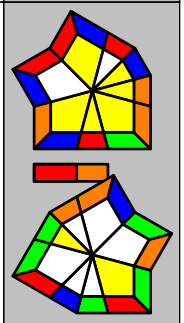
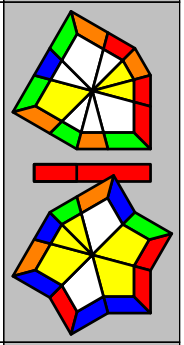
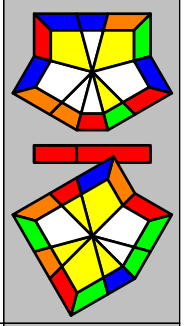
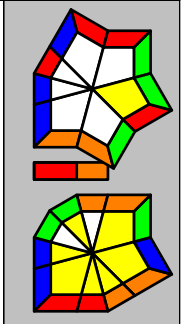
1.	R' B R' B U' B' L U B U' B u' l r' b	
2.	L' R B L U' R' L B L R' B u' l' r' b'	
3.	U L' B R U' L' B L' B' L' R u' r	
4.	R' L B R' L' R U' R' B' R L l r b'	
5.	R B R' L U' L U R' U B' R' u' l r b'	

2019-06-13

skewb

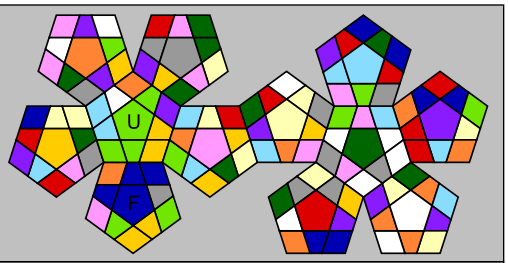
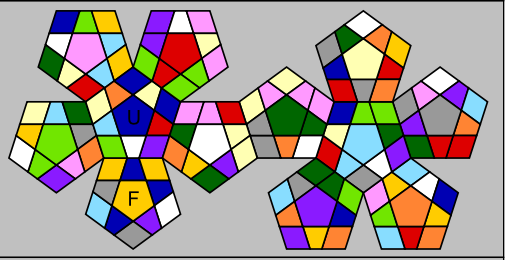
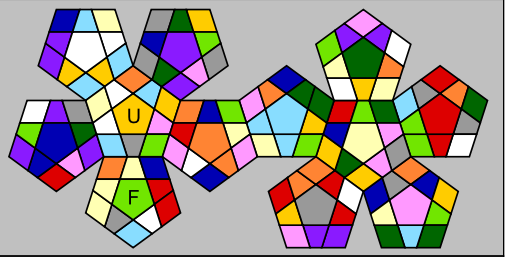
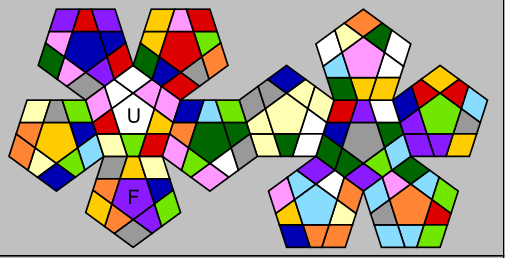
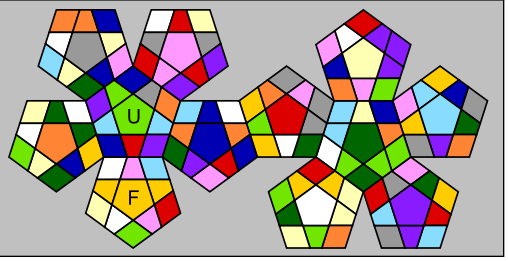
Scrambles for 2019-06-13

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

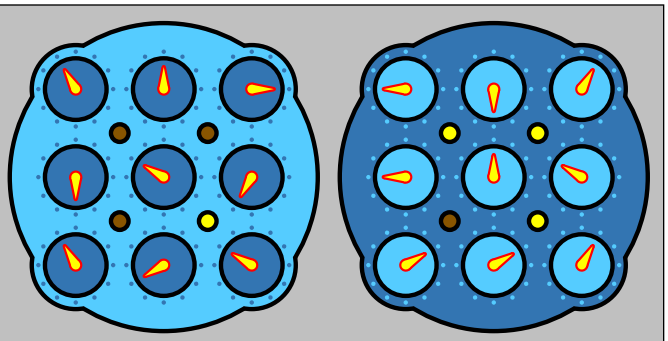
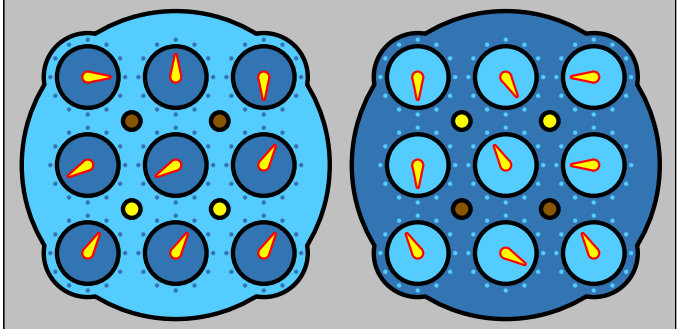
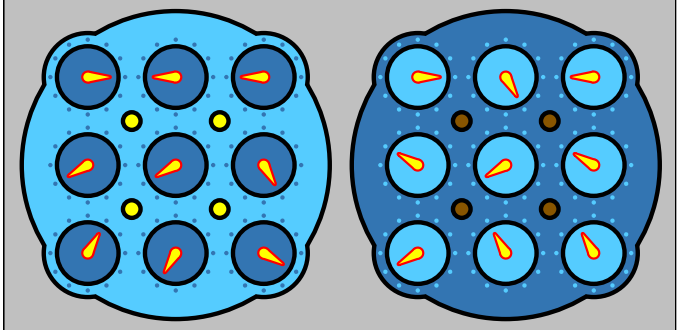
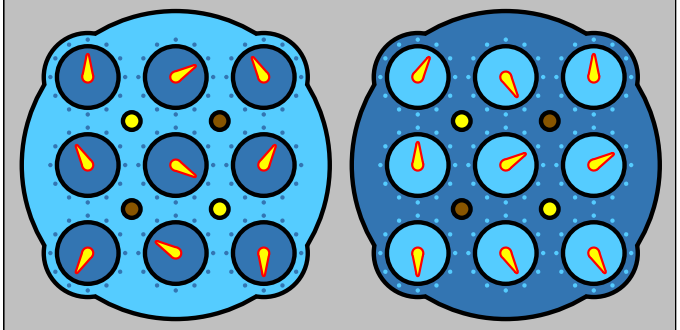
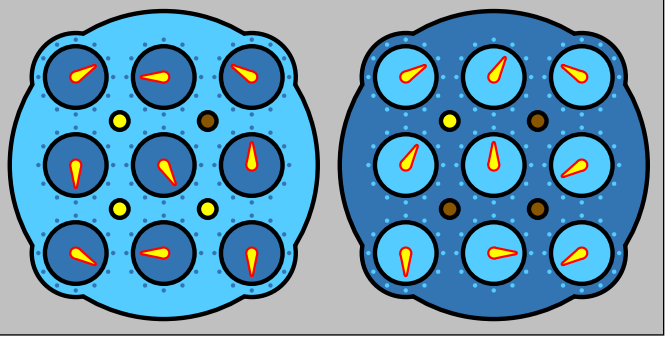
1.	(4,0) / (-4,5) / (0,-3) / (0,-3) / (-2,-5) / (3,0) / (-3,-4) / (-3,-3) / (-5,0) / (0,-4) / (4,0) / (6,0) / (0,-2) /	
2.	(0,-4) / (0,-3) / (-2,4) / (-3,0) / (5,-4) / (-5,-3) / (0,-3) / (-1,0) / (0,-4) / (-2,0) / (-3,-4) / (6,-4)	
3.	(-5,0) / (5,5) / (3,0) / (-2,-5) / (3,0) / (-1,-4) / (-5,0) / (-3,0)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

2019-06-13

minx
Scrambles for 2019-06-13

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 2019-06-13

1.	UR4- DR3+ DL5+ UL5+ U3- R4+ D2- L4+ ALL0+ y2 U2+ R4+ D2- L3+ ALL3+ DR	
2.	UR6+ DR1- DL6+ UL2- U3+ R0+ D1+ L2- ALL0+ y2 U5- R0+ D4- L5- ALL2- DR DL	
3.	UR1- DR2+ DL1- UL5+ U5+ R3- D2+ L6+ ALL5+ y2 U1+ R0+ D1- L3+ ALL5+ UR DR DL UL	
4.	UR2- DR3- DL4+ UL5+ U6+ R5- D4- L3+ ALL2- y2 U6+ R5+ D2+ L3+ ALL0+ DR UL	
5.	UR6+ DR4+ DL1- UL5- U4- R1+ D4- L2- ALL5+ y2 U4- R1- D4- L5+ ALL3- DR 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]

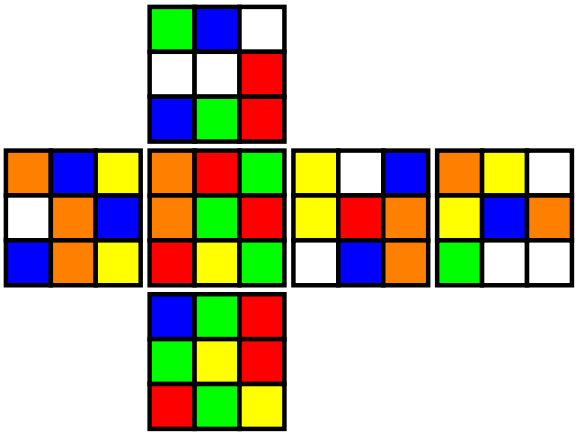
Scrambles for 2019-06-13
333fm

Competitor: _____

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

DO NOT FILL IF YOU ARE THE COMPETITOR.

Graded by: _____ Result: ____



Scramble: R' U' F R2 B R2 B' D2 L2 R2 F' U2 R' B' R U2 B2 D2 R2 B2 U' L F' 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]

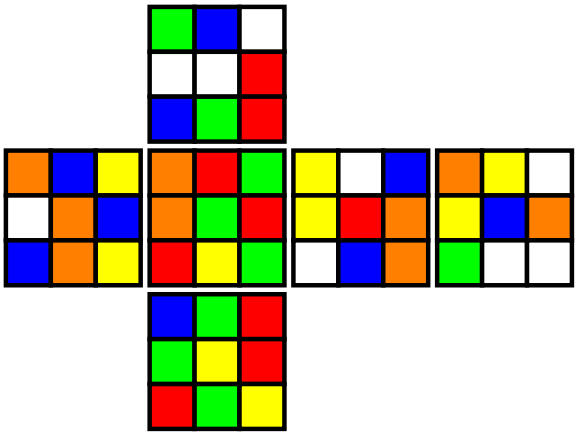
Scrambles for 2019-06-13
333fm

Competitor: _____

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

DO NOT FILL IF YOU ARE THE COMPETITOR.

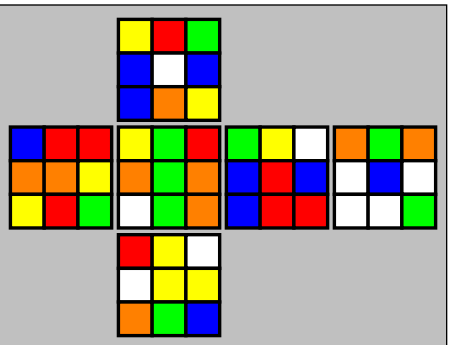
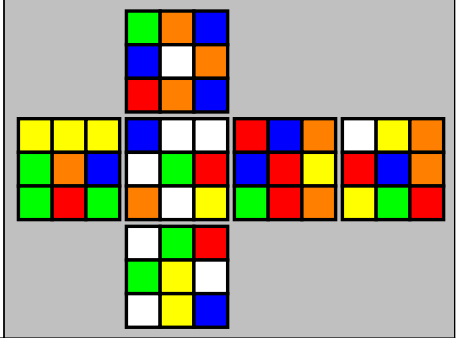
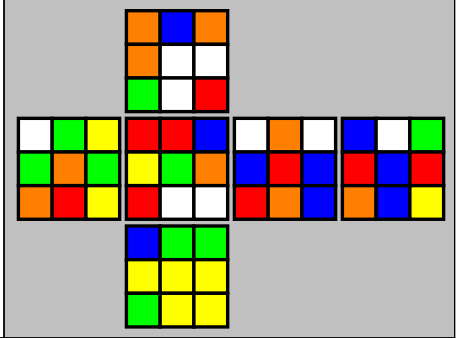
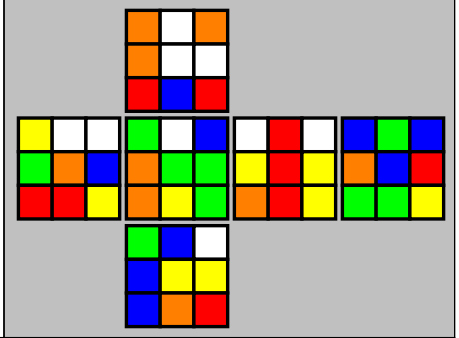
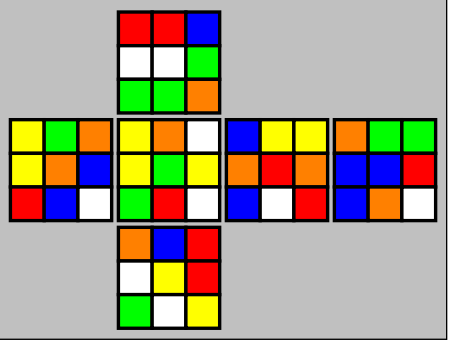
Graded by: _____ Result: ____



Scramble: R' U' F R2 B R2 B' D2 L2 R2 F' U2 R' B' R U2 B2 D2 R2 B2 U' L F' R' U' F

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

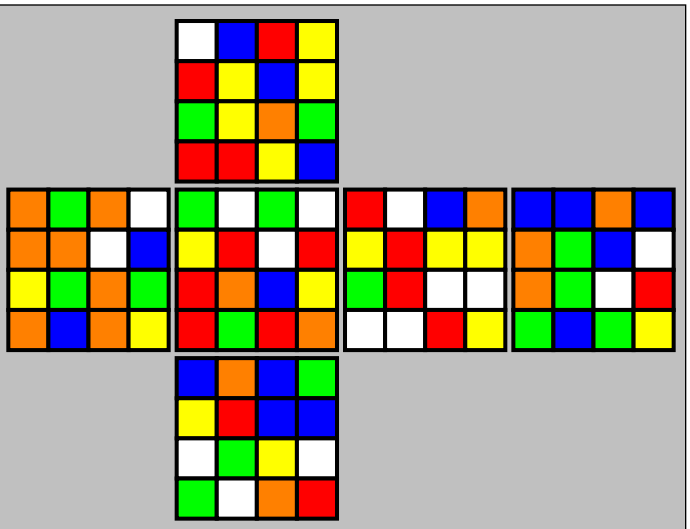
333ft
Scrambles for 2019-06-13

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

444bf
Scrambles for 2019-06-13

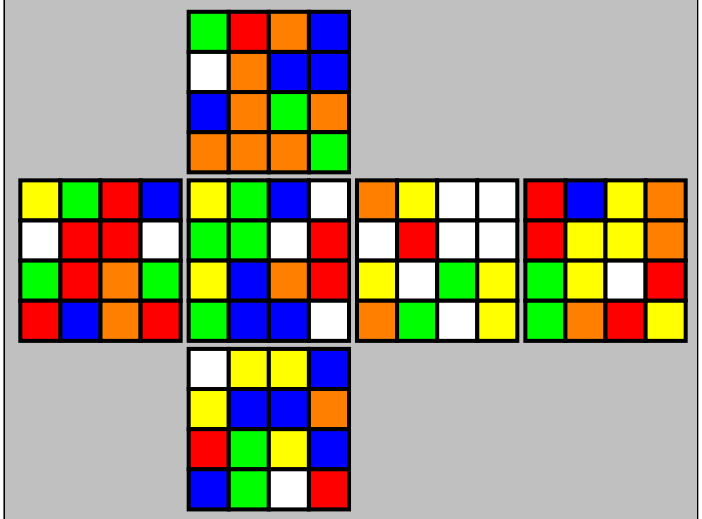
1.

D' U2 R U' B
U' R' L2 F D
F2 U2 R F2 D2
R F2 D2 Uw2 Fw2
Uw2 B' Rw2 U2 F
L' R2 U2 F R2
Uw' B Uw2 Fw2 R2
U Fw' Rw Fw R2
Fw U2 L x2



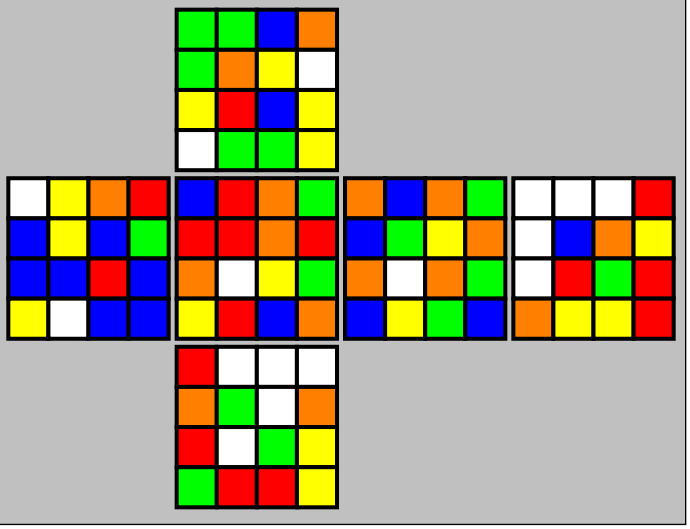
2.

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



3.

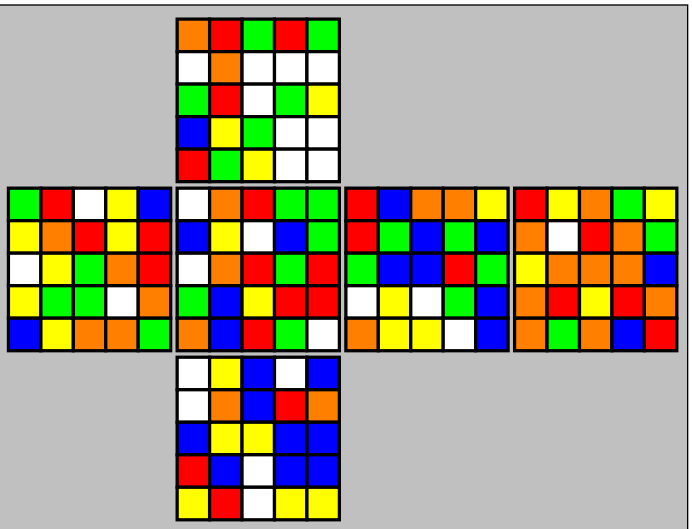
R2 B L2 R U2
B' F U L B
R2 B' L2 F2 U2
F' L2 B' R2 Fw2
D B' Uw2 U2 B'
Rw2 R2 Fw2 B2 U'
Rw U2 F2 L' B'
R' D2 Fw' L' Uw2
Rw' B U' Fw' x2
y'



555bf
Scrambles for 2019-06-13

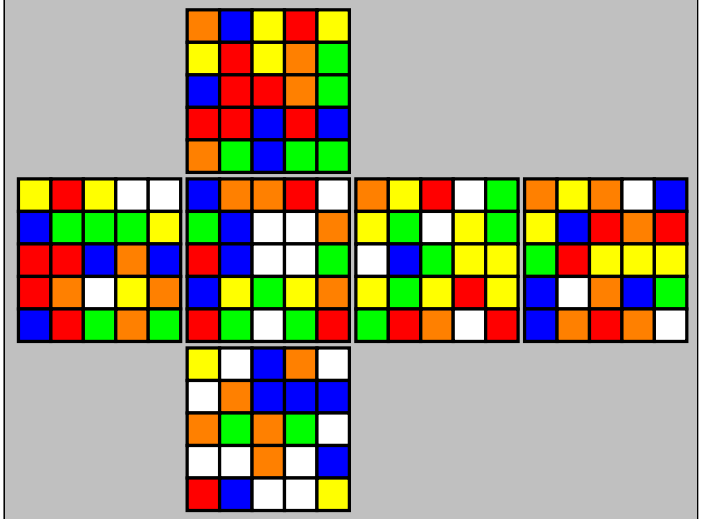
1.

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



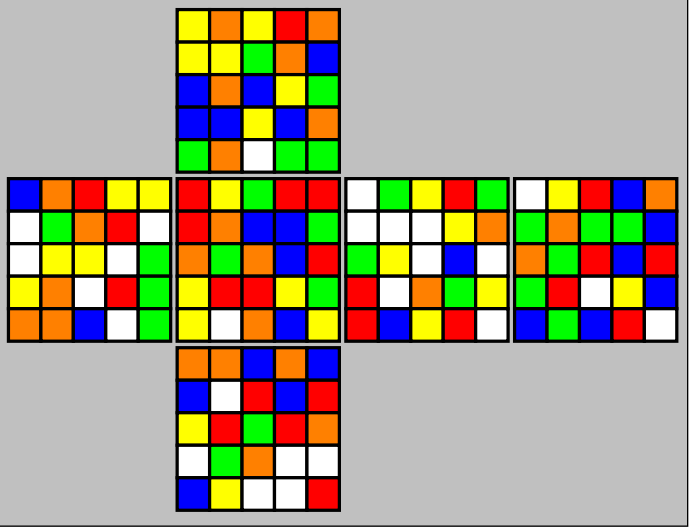
2.

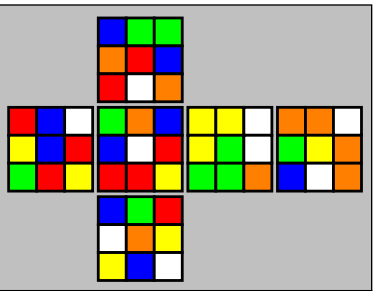
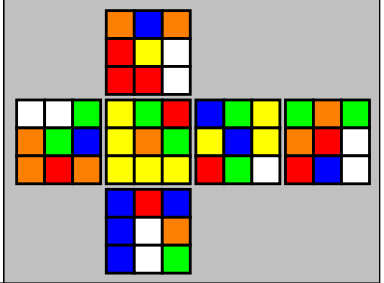
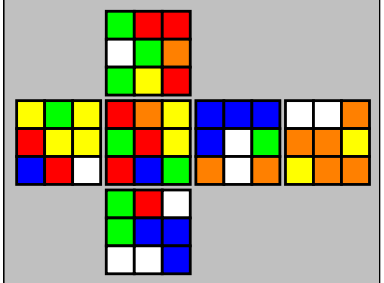
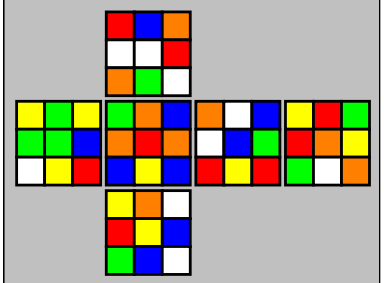
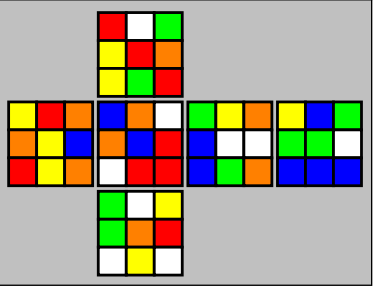
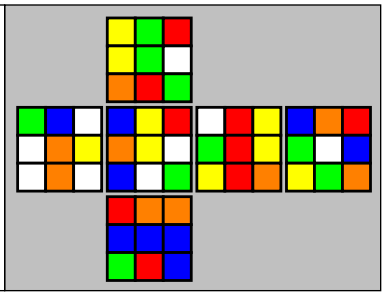
Lw' Fw' U' Lw Fw2
B Rw' Fw2 U Uw2
Rw2 Fw' U2 Fw' Uw
D Lw' D U2 Dw
L B L Uw2 Fw
F' L Fw2 F2 Rw
Uw2 Lw' U2 R U2
F Lw' R' Fw2 D'
L Rw' R2 B U2
Dw2 L' Bw Rw B
Bw2 U2 Rw B' D
B' R2 B2 Lw2 R2
3Fw' 3Uw'



3.

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



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

6.	R2 B2 U2 L2 U2 R' D2 R2 B2 U' L' D' B' D U2 L2 B' D2 B' U' Rw