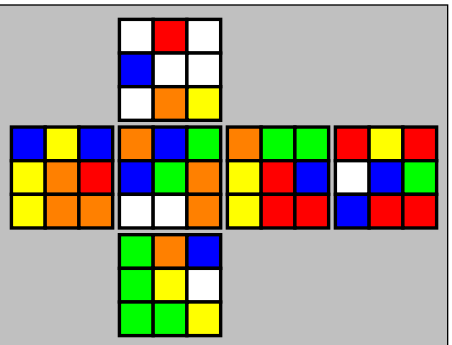
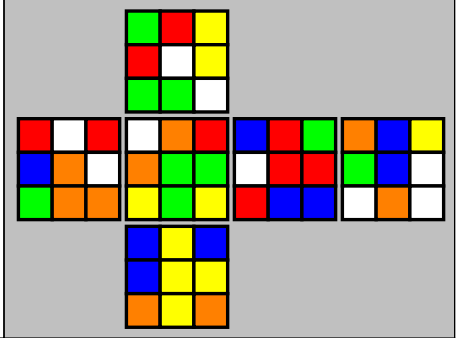
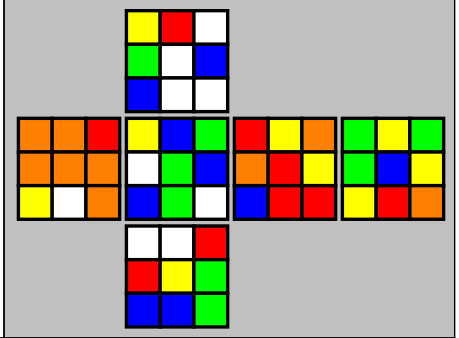
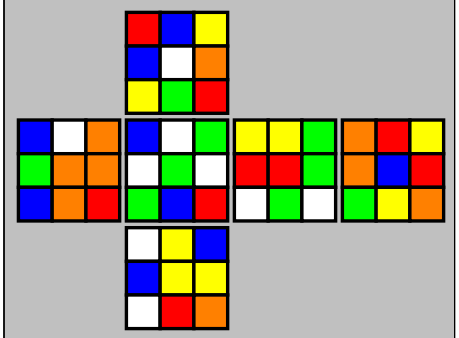
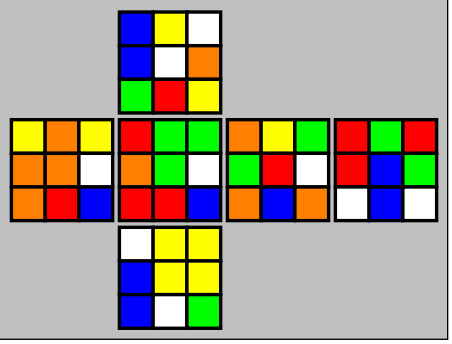
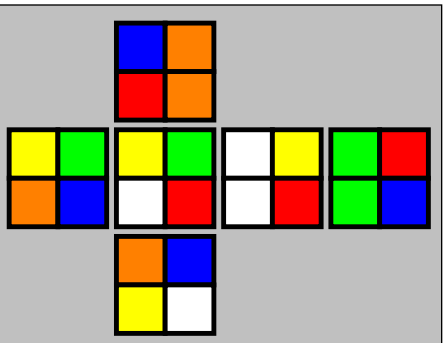
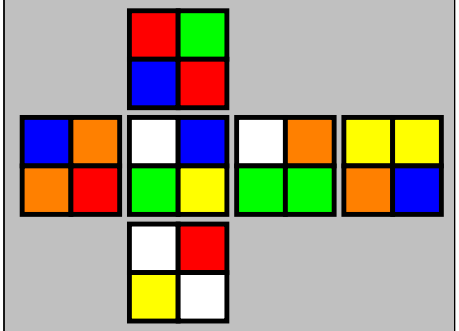
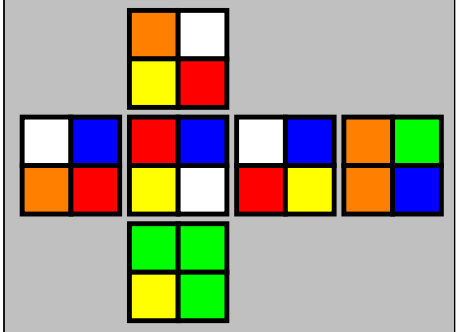
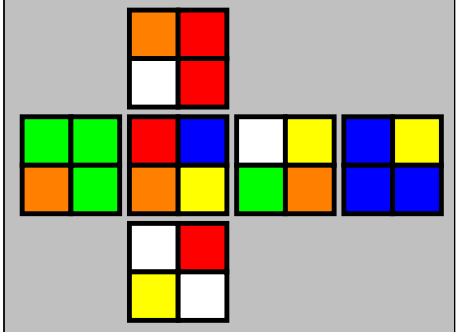
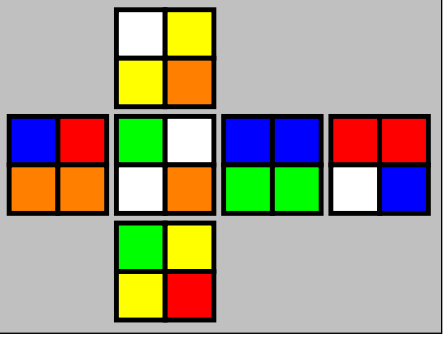
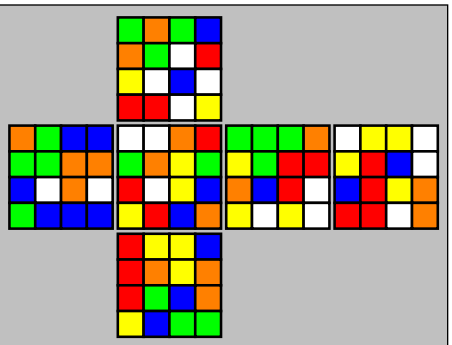
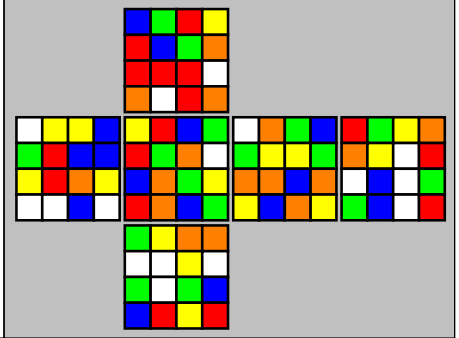
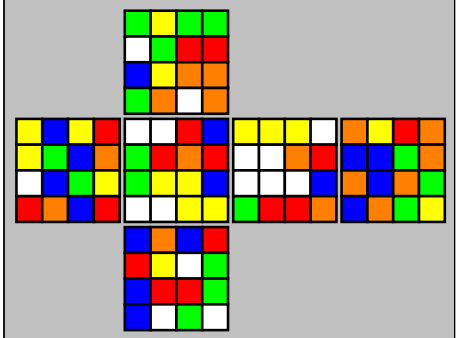
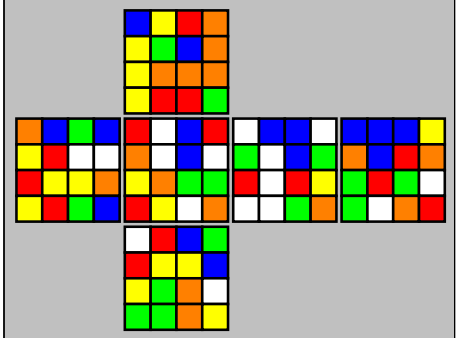
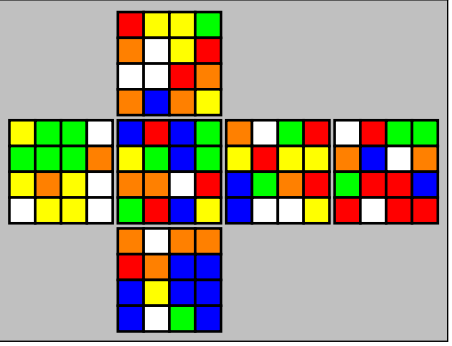
1.	R D2 B2 R D2 R U2 R' F2 R' D2 U B U2 B F' R' B R2 U2	
2.	F2 R2 U' F2 L2 R2 U' F2 L2 B D2 B L2 F2 U B' L R2 F	
3.	B2 D2 L B' R' F U' F2 U' B R2 F R2 F' L2 B R2 D2 R2	
4.	U2 B F2 D2 L2 R2 B2 F D' U L D' F2 U F' L' R D B'	
5.	U2 R2 B' R2 F2 L2 F' D2 L2 F' D U F' R B2 D2 B U B2 U'	

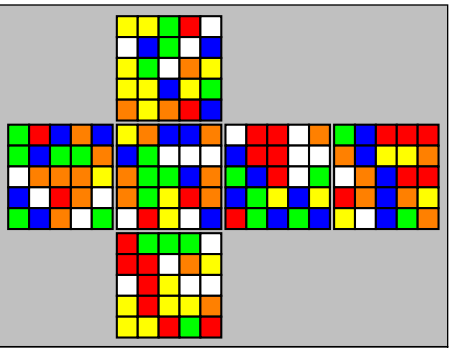
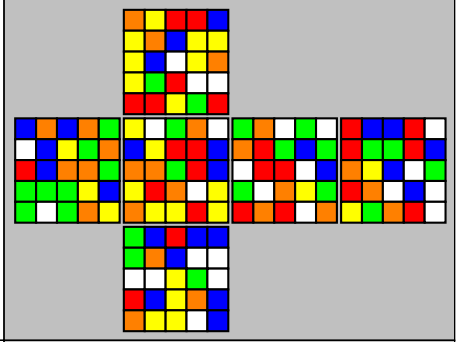
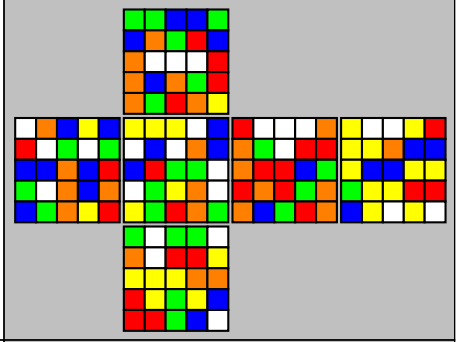
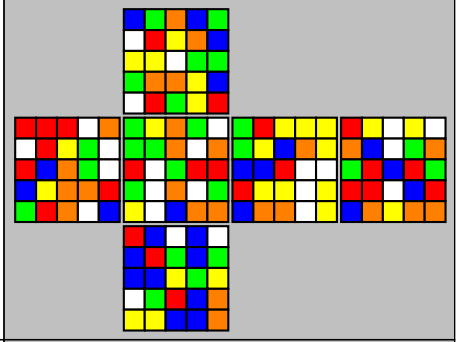
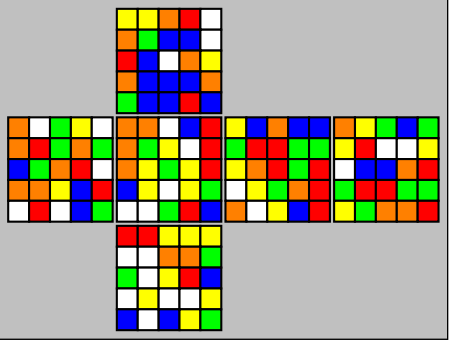
Scrambles for 2019-06-22

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

Scrambles for 2019-06-22

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

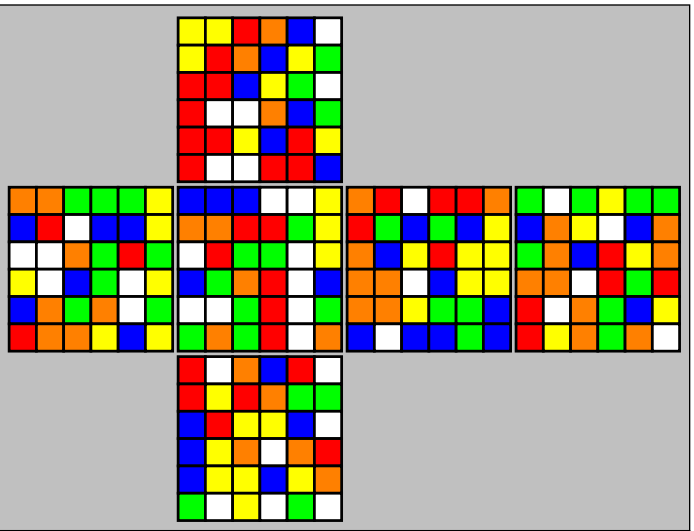
555
Scrambles for 2019-06-22

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

Scrambles for 2019-06-22

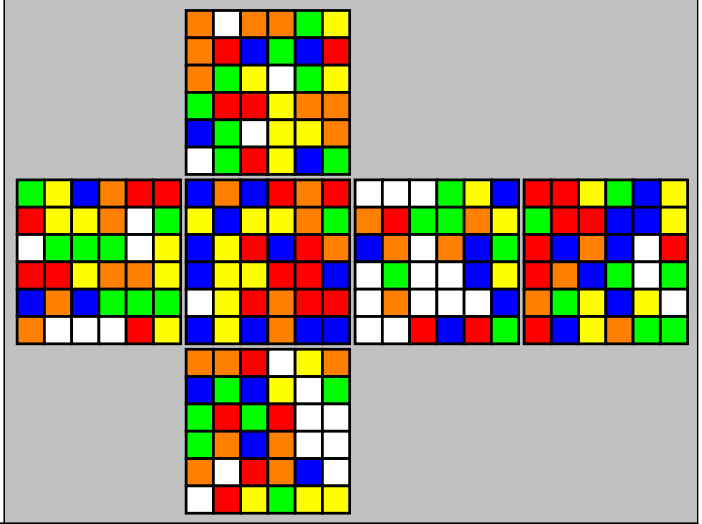
1.

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



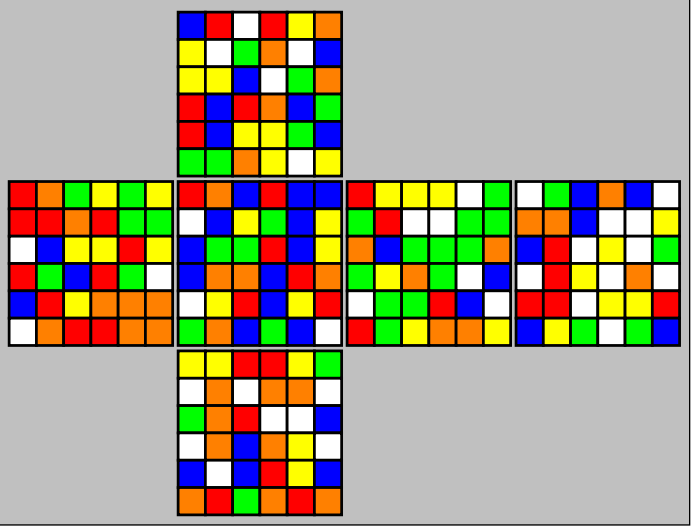
2.

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



3.

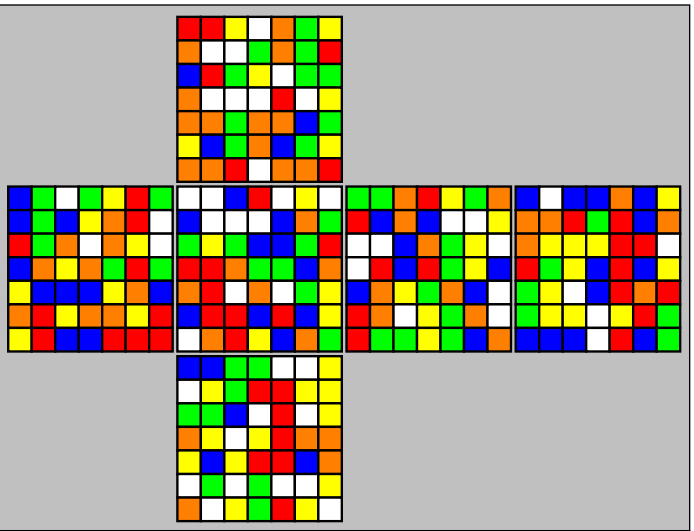
Uw Rw F' D L2 Rw
F B2 Rw2 Lw R2 3Fw2
Dw' B 3Fw D2 Rw Bw'
B2 D 3Fw 3Uw2 U2 Bw
3Rw 3Uw2 Dw2 3Fw R 3Uw'
3Rw L Bw' D2 3Rw' Lw2
Dw2 3Fw2 Lw D 3Fw2 U2
Dw' 3Fw Uw D' F Uw2
Bw2 3Fw D2 3Uw' B' 3Fw'
L U' B' 3Uw2 Lw L2
U 3Rw U Bw Rw' Dw2
R' Fw2 Uw' 3Rw' U2 D
Dw F 3Uw2 Fw2 Uw' L
U2 Uw



Scrambles for 2019-06-22

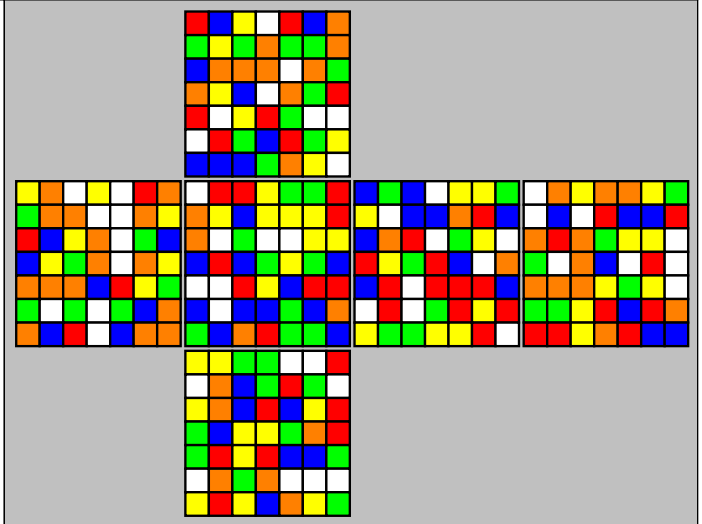
1.

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



2.

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



3.

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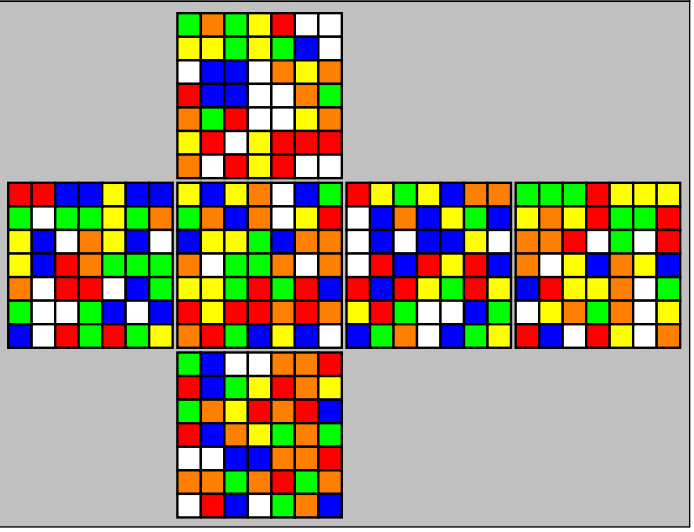
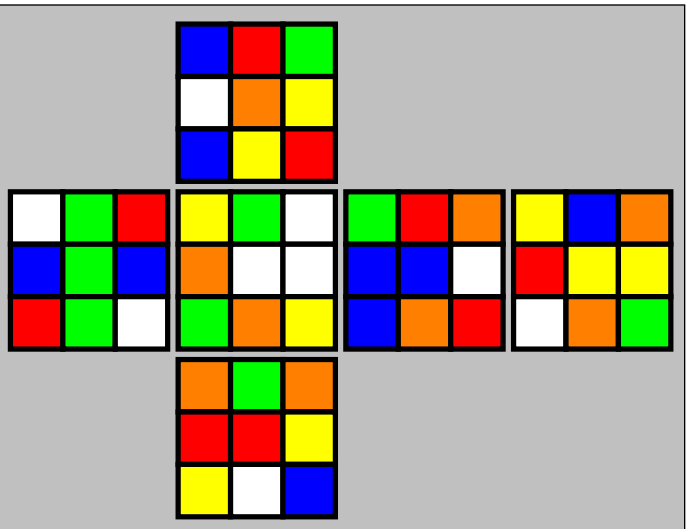
R' F' Lw2 R2 U' Bw2 3Bw'
F' U R' U2 F Lw2 D'
Lw' F



333bf
Scrambles for 2019-06-22

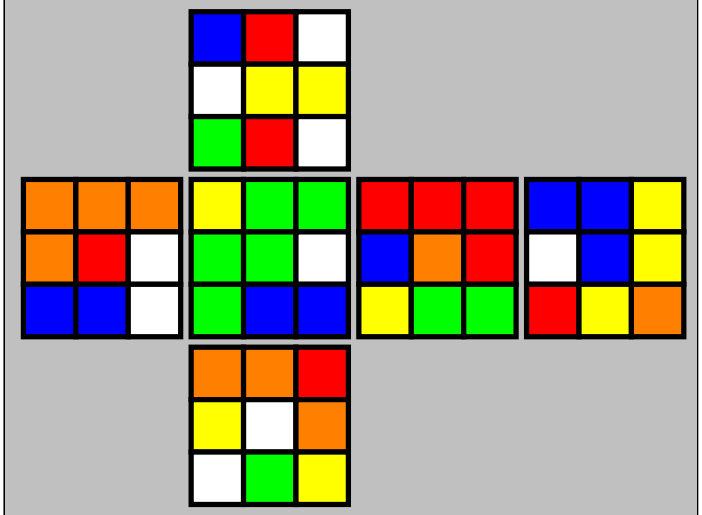
1.

R2 U2 R' U2 L' F2
L' D2 B' F' U' B'
F2 L2 B R' D2 L2
R Fw Uw



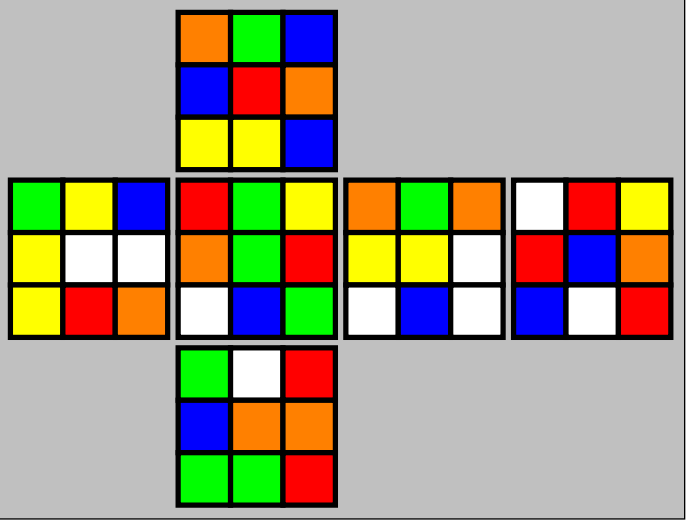
2.

F R2 U2 F'
D2 L2 U2 B2
U' R' B' U2
R B2 L2 D'
B' F Rw2 Uw2



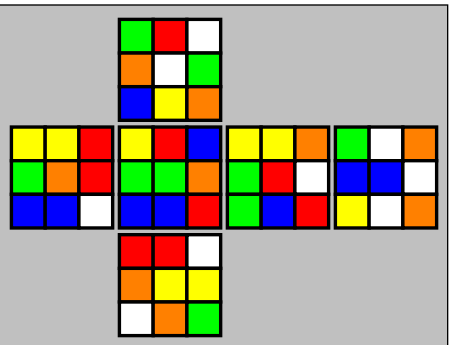
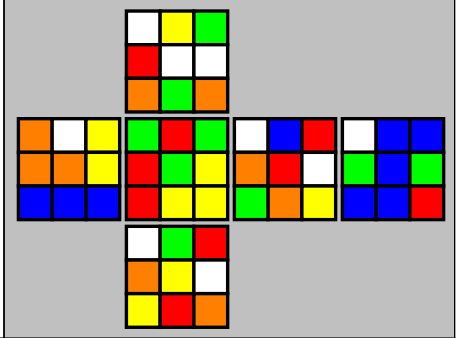
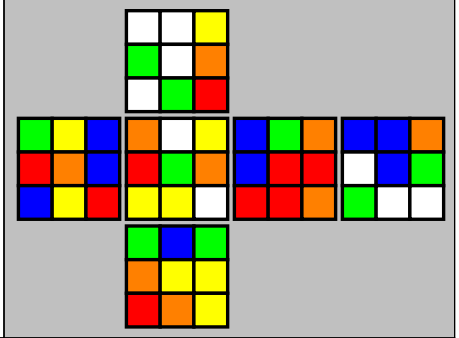
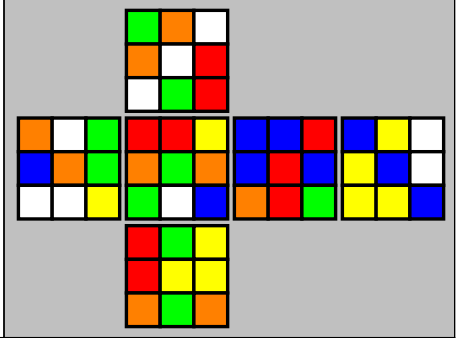
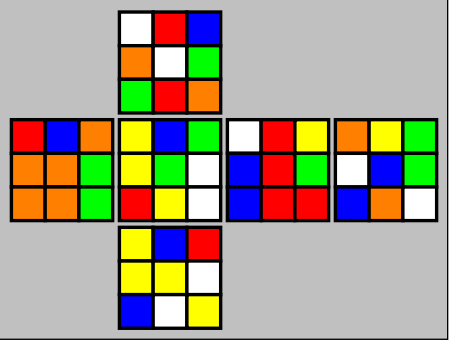
3.

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



2019-06-22

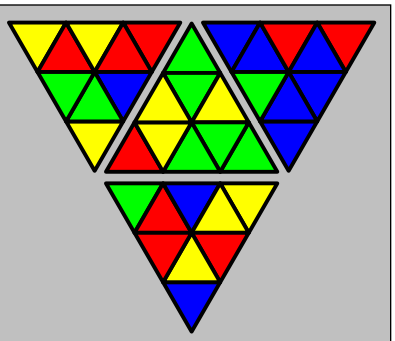
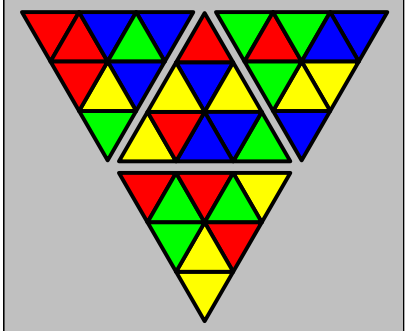
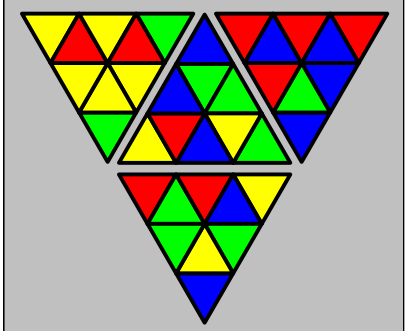
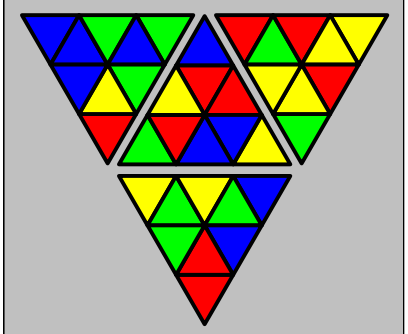
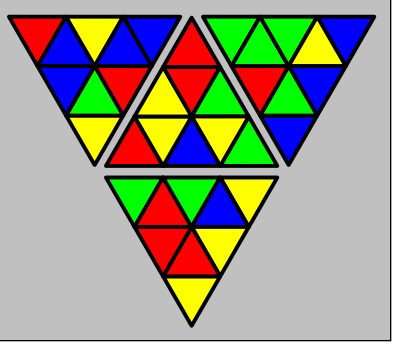
333oh
Scrambles for 2019-06-22

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

2019-06-22

pyram

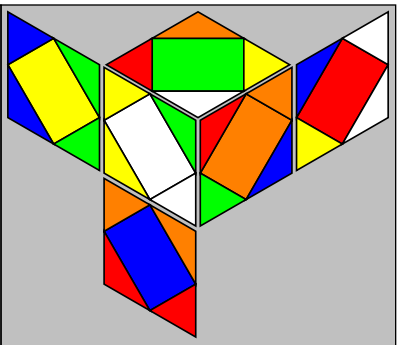
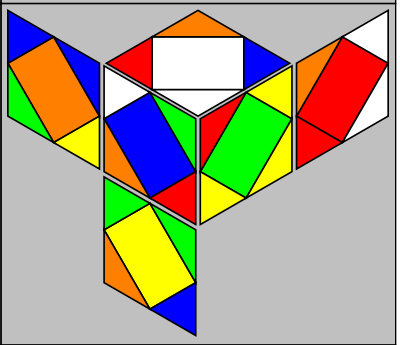
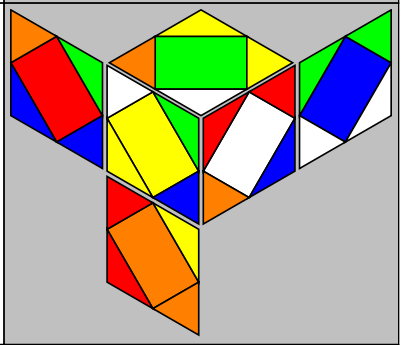
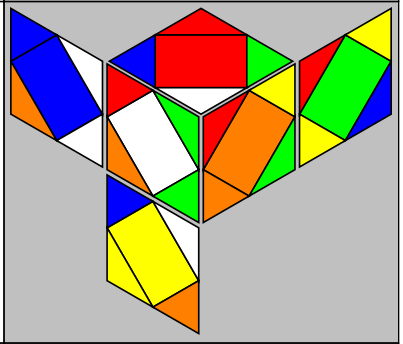
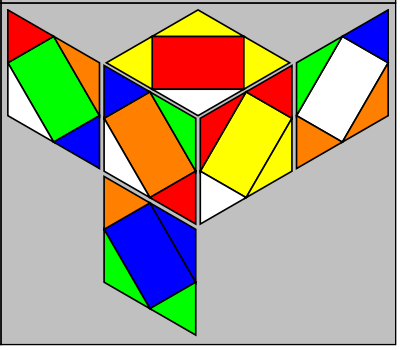
Scrambles for 2019-06-22

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

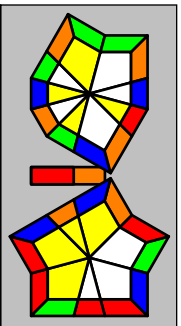
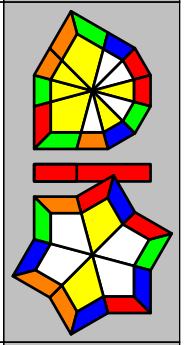
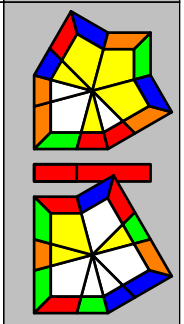
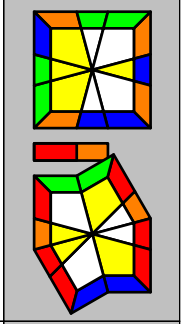
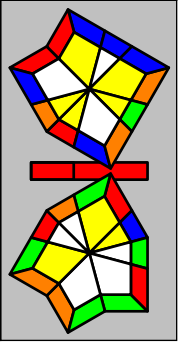
2019-06-22

skewb

Scrambles for 2019-06-22

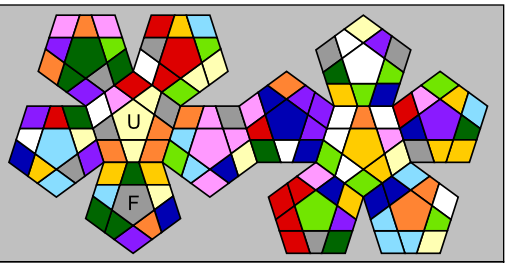
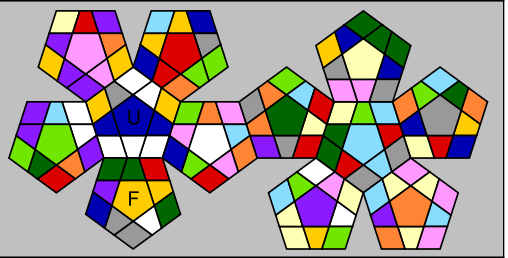
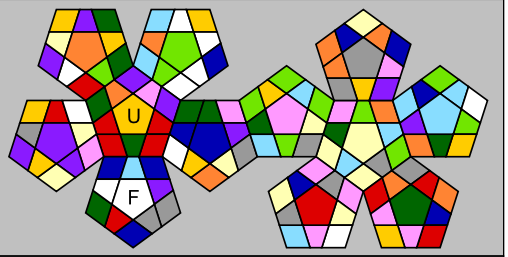
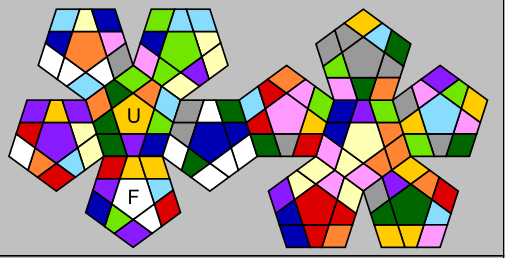
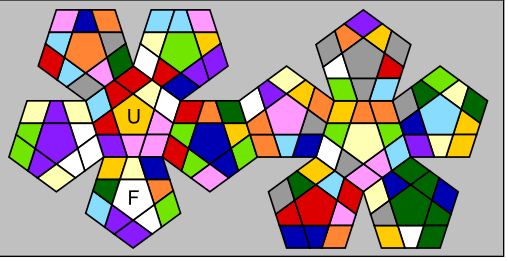
1.	R B R B R' U R' L R' B U'	
2.	B U B' U' R' B L U R B' U'	
3.	R B R' B R B U' L B' R U'	
4.	L U R B R B' L R B L U	
5.	U L R' U' L' B' R B' L' U' R'	

Scrambles for 2019-06-22

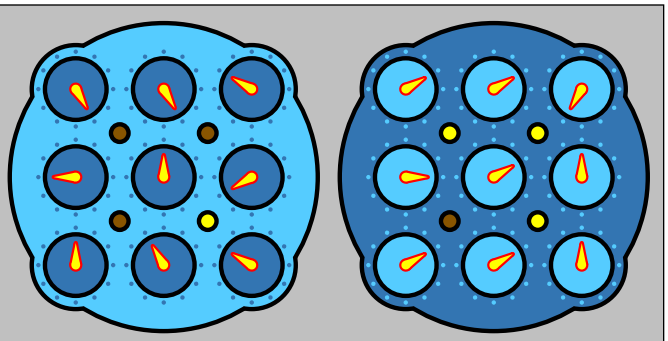
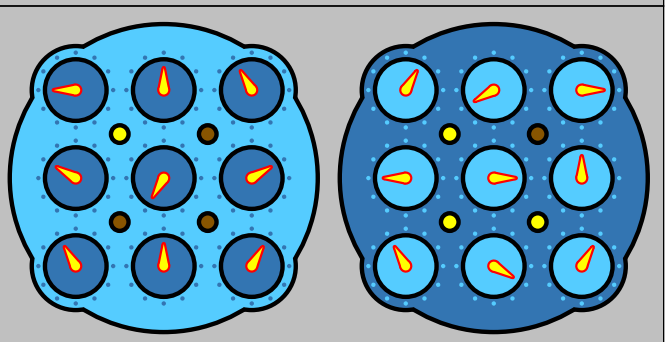
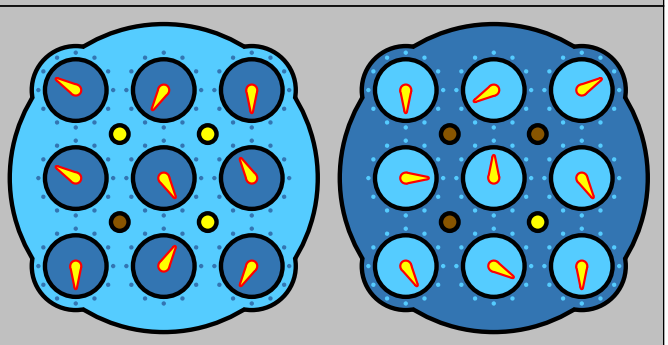
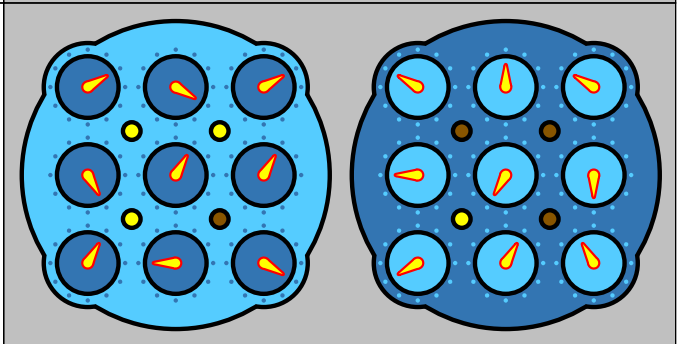
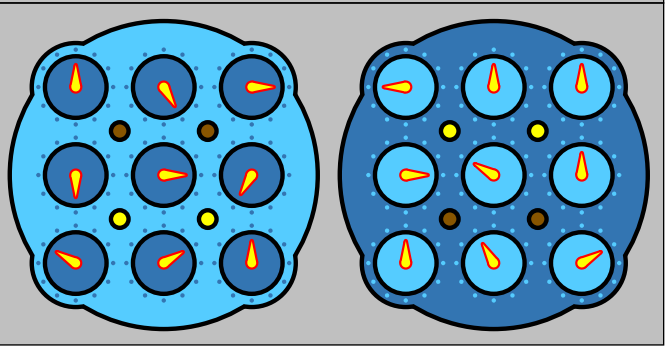
1.	(3,-4) / (1,4) / (6,-3) / (0,-1) / (-3,0) / (0,-3) / (-5,-3) / (6,-4) / (0,-2) / (6,-4) / (-4,-1) / (-2,0)	
2.	(1,0) / (-4,2) / (1,-2) / (0,-3) / (6,-3) / (0,-3) / (0,-4) / (-3,-3) / (-1,0) / (0,-4) / (2,0) / (4,0) / (2,-4)	
3.	(0,2) / (3,-3) / (-5,4) / (3,-3) / (5,-4) / (6,-2) / (-3,0) / (-2,-3)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

2019-06-22

minx
Scrambles for 2019-06-22

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 2019-06-22

1.	UR6+ DR0+ DL3- UL4- U2- R5+ D3+ L3- ALL0+ y2 U1+ R3+ D5- L4+ ALL3- DR	
2.	UR4- DR6+ DL1+ UL3+ U0+ R4+ D0+ L1- ALL6+ y2 U5- R3- D5- L5+ ALL3+ UL	
3.	UR5+ DR4- DL1+ UL3+ U0+ R4- D5- L3+ ALL1+ y2 U4+ R5- D2- L6+ ALL2+ UR DR UL	
4.	UR2+ DR0+ DL5- UL0+ U4+ R4- D0+ L6+ ALL4+ y2 U4+ R4- D3- L0+ ALL4+ UR DL UL	
5.	UR2+ DR1+ DL6+ UL6+ U3+ R4+ D3+ L2- ALL1- y2 U1+ R3- D2- L4- ALL1- DR DL	

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]

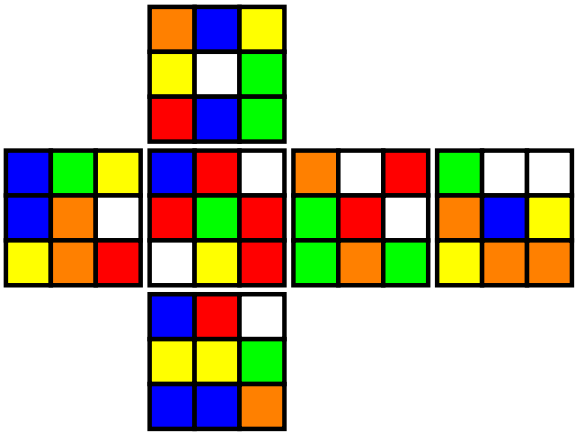
Scrambles for 2019-06-22
333fm

Competitor: _____

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

DO NOT FILL IF YOU ARE THE COMPETITOR.

Graded by: _____ Result: ____



Scramble: R' U' F U2 F2 L D2 R U2 R B2 L' D' R' B R2 B2 L B2 F L2 B2 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]

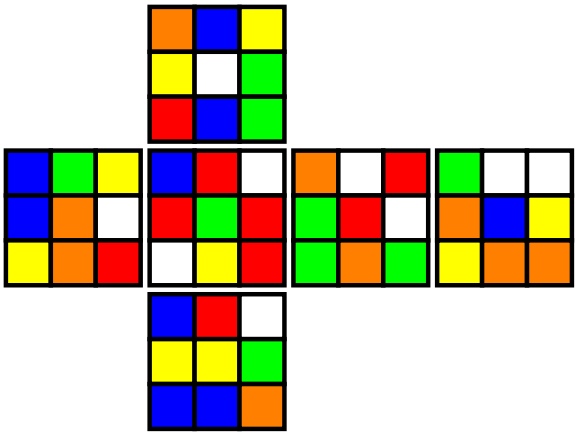
Scrambles for 2019-06-22
333fm

Competitor: _____

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

DO NOT FILL IF YOU ARE THE COMPETITOR.

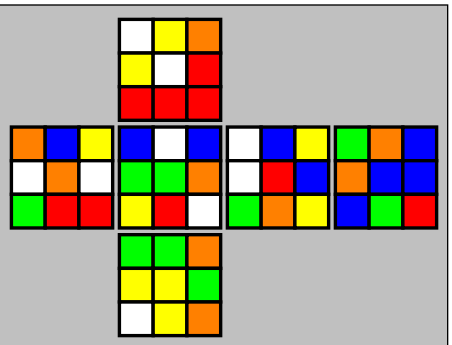
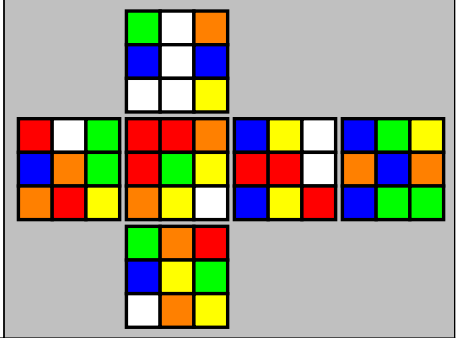
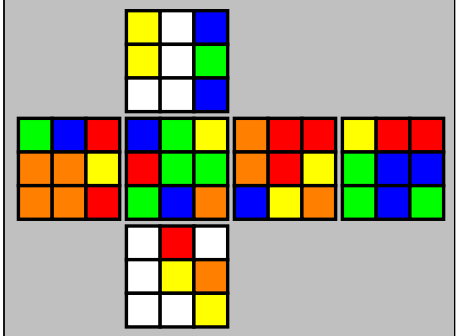
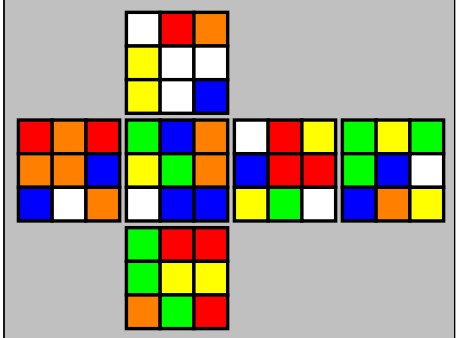
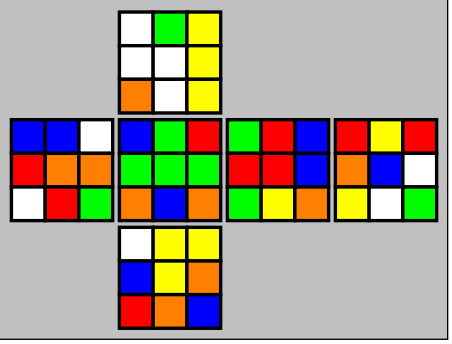
Graded by: _____ Result: ____



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

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

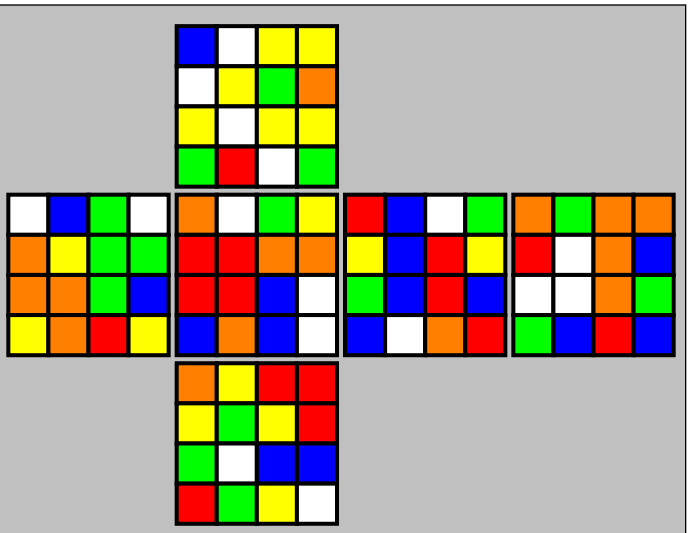
333ft
Scrambles for 2019-06-22

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

444bf
Scrambles for 2019-06-22

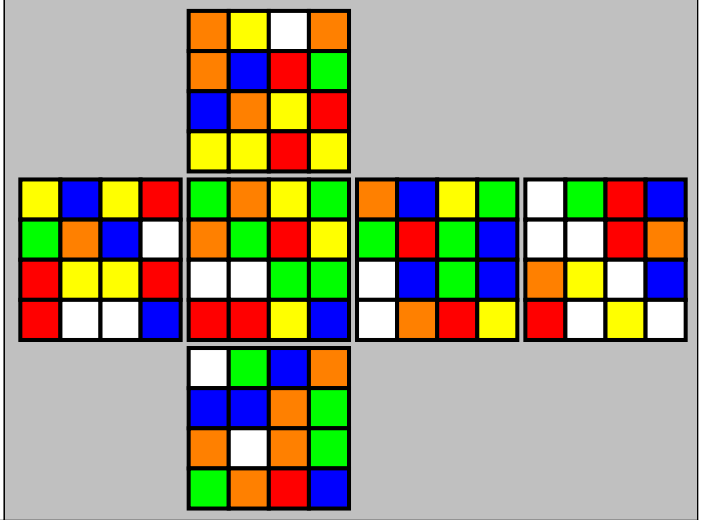
1.

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



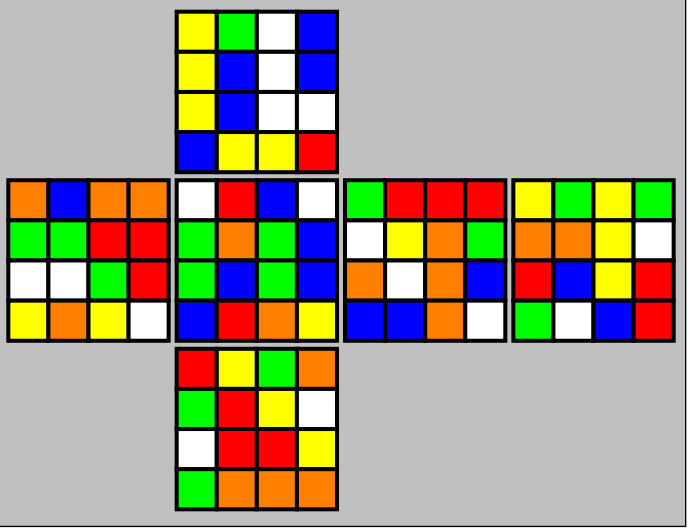
2.

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



3.

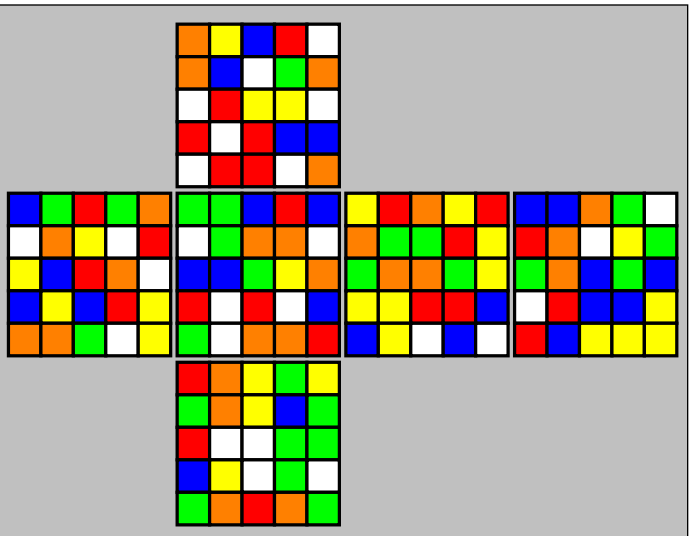
F2 R2 B2 U B2
D' F2 U L2 D
R' B2 U L' F'
R' U' R2 F' Fw2
D' R Uw2 R' F2
Uw2 Rw2 U' B2 U
B2 Fw' R2 F L2
R' Fw' F Uw' R2
B2 Uw' Rw' Fw' x
y



555bf
Scrambles for 2019-06-22

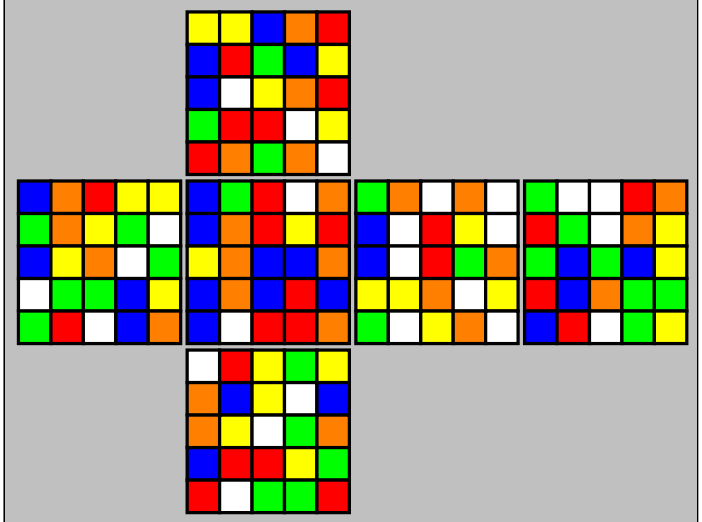
1.

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



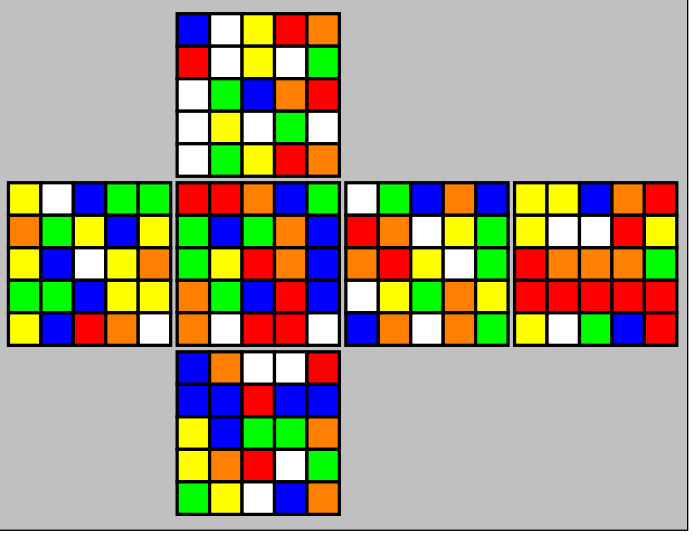
2.

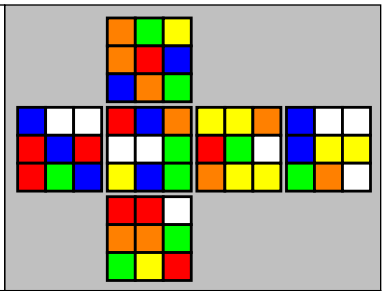
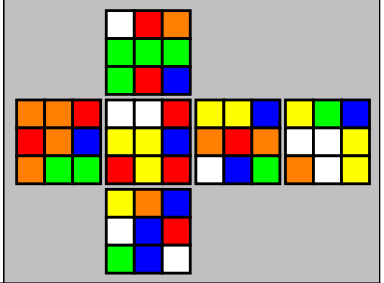
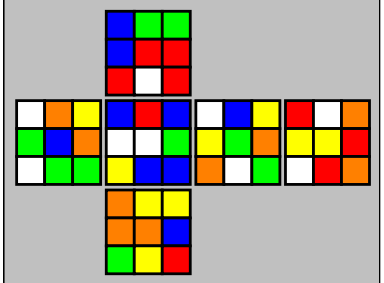
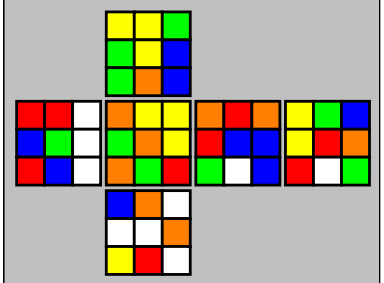
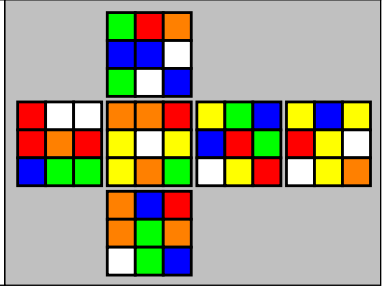
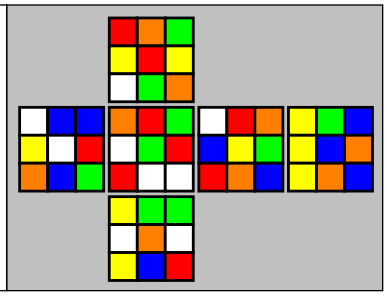
Uw2 B' Rw' R B2
Fw2 U' D Bw2 Lw'
Fw Lw Bw Lw2 L'
U R2 Bw' Fw L2
Bw' Lw2 Fw2 U F
D' Bw' Rw Dw Fw
Bw2 R' Bw' Rw Lw'
Bw2 F2 Dw' F' Lw'
L Dw2 L2 Fw' Dw
F2 Uw' Rw' Lw2 L
B2 U' Dw2 Lw2 L'
Rw' B' U B2 L'
3Rw2



3.

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



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

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