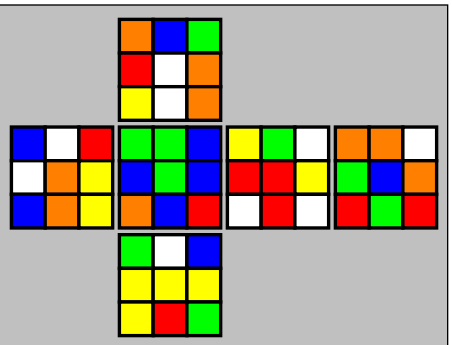
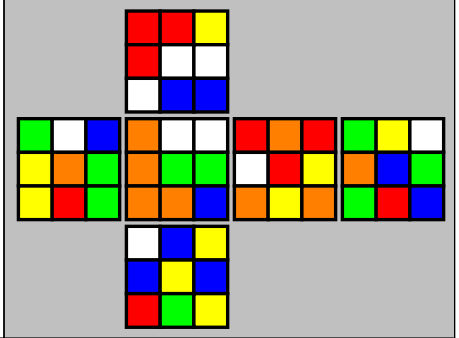
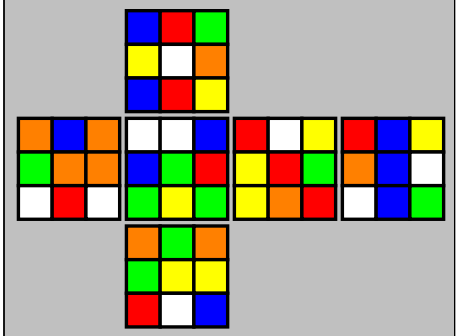
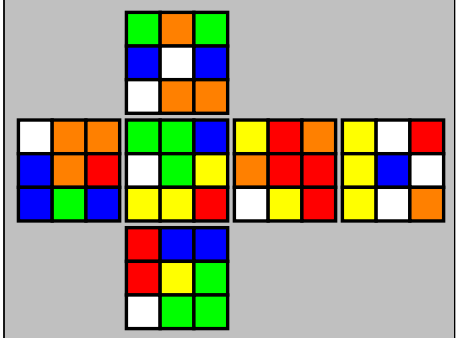
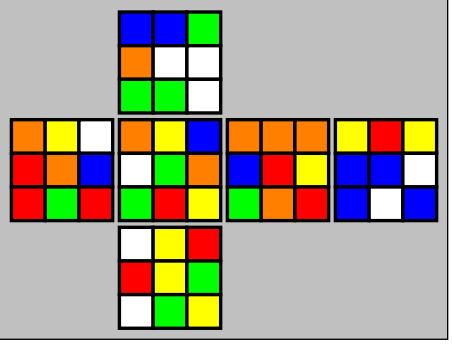
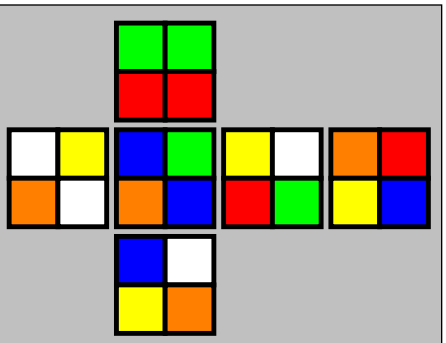
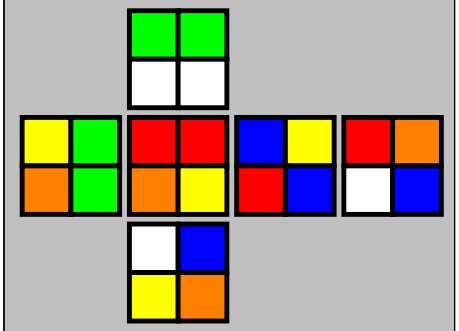
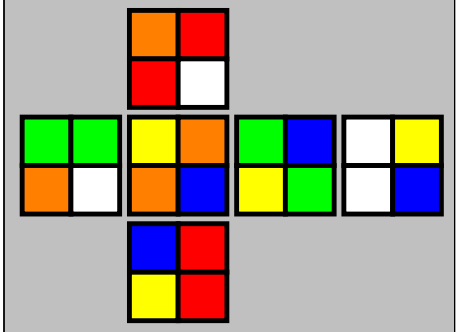
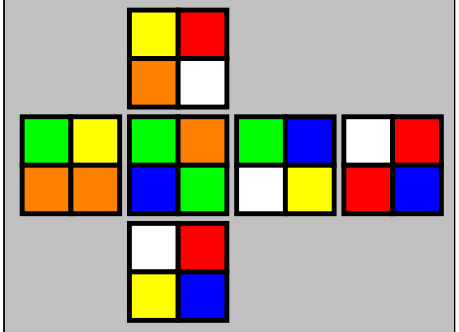
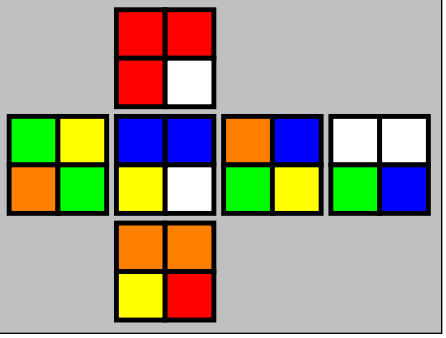
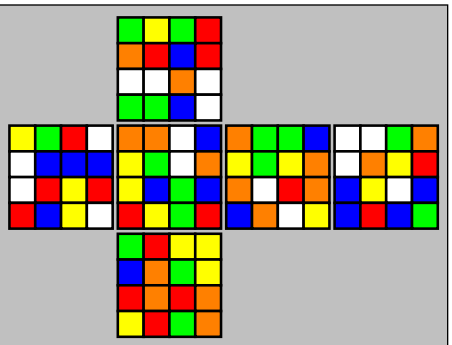
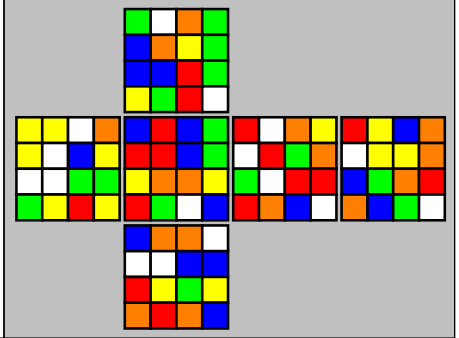
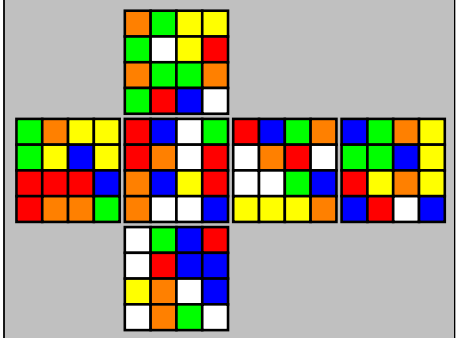
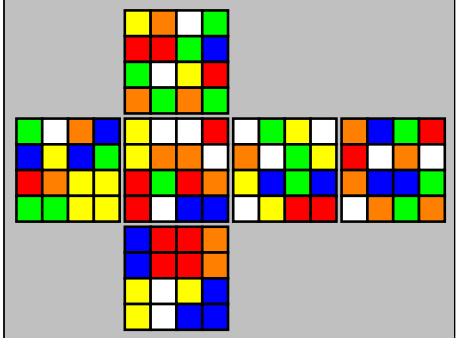
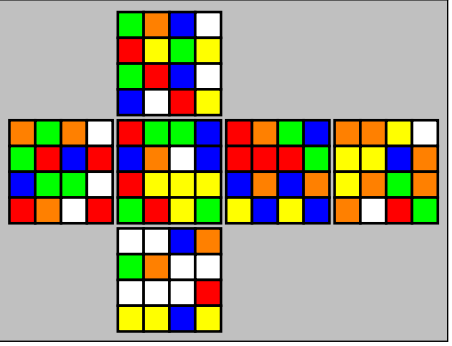
333
Scrambles for 2019-05-30

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

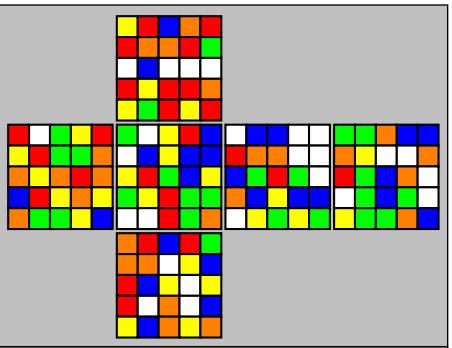
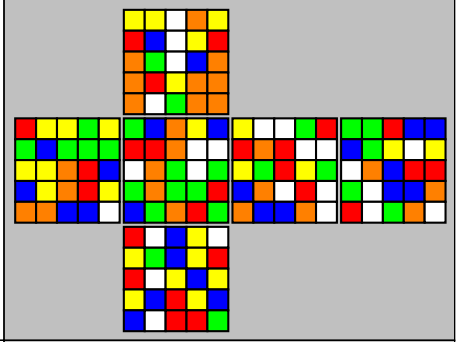
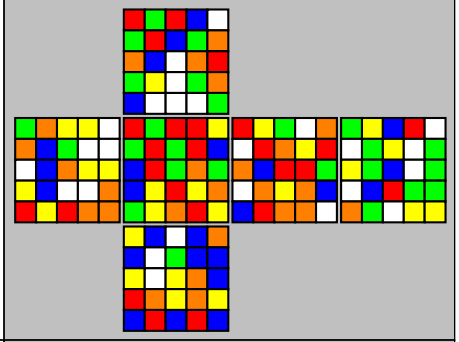
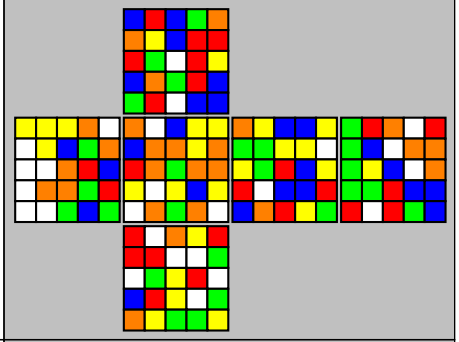
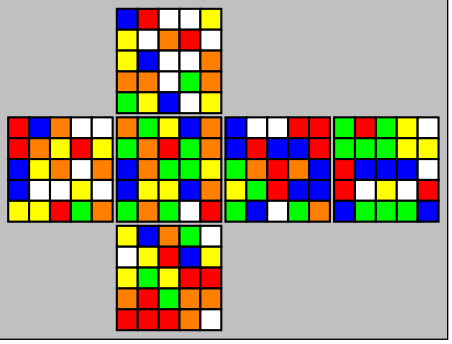
Scrambles for 2019-05-30

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

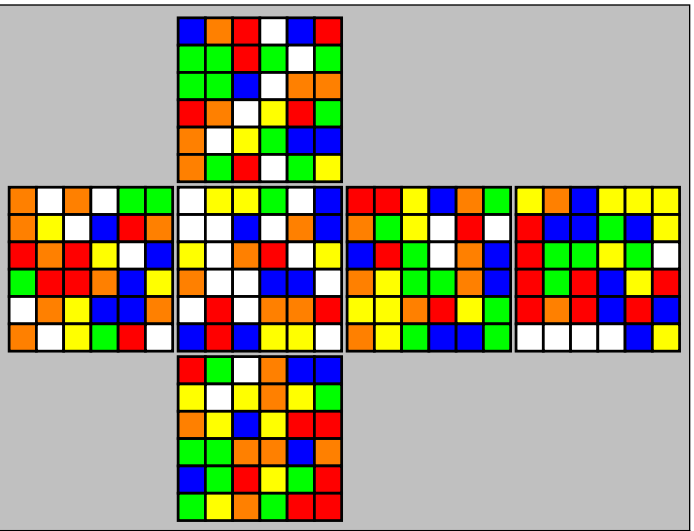
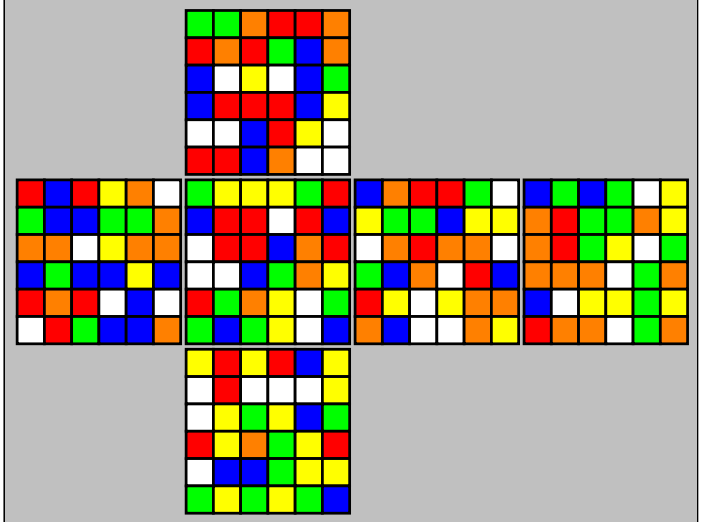
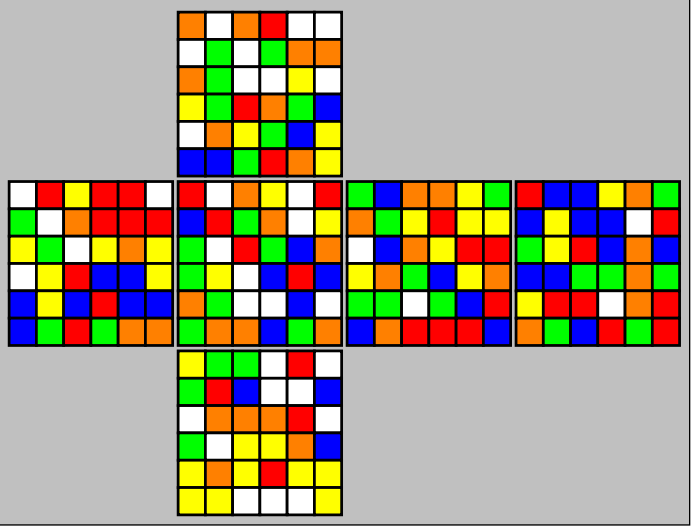
444
Scrambles for 2019-05-30

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

555
Scrambles for 2019-05-30

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

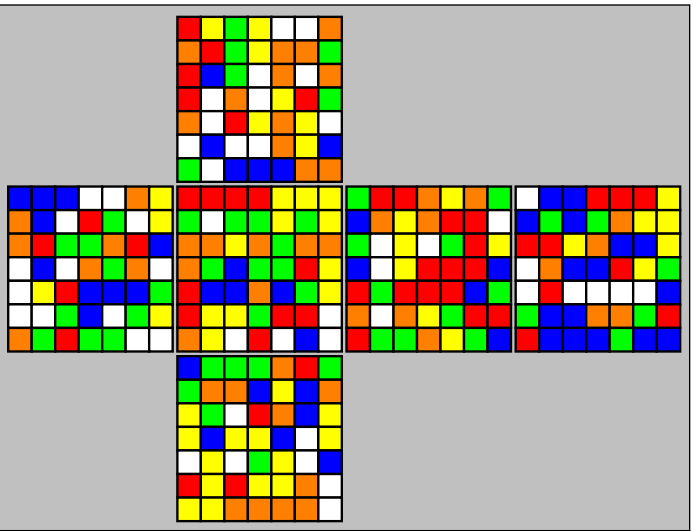
Scrambles for 2019-05-30

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

Scrambles for 2019-05-30

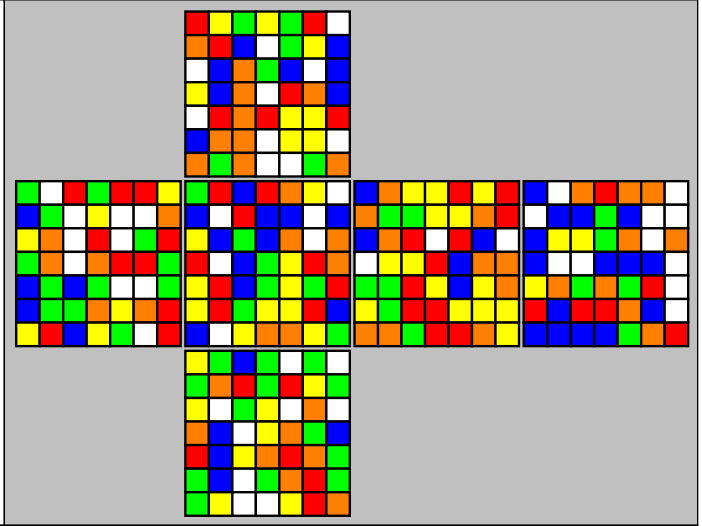
1.

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



2.

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



3.

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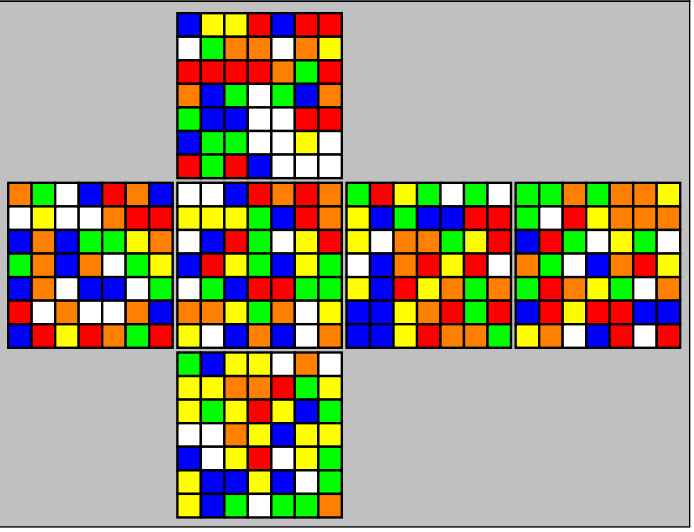
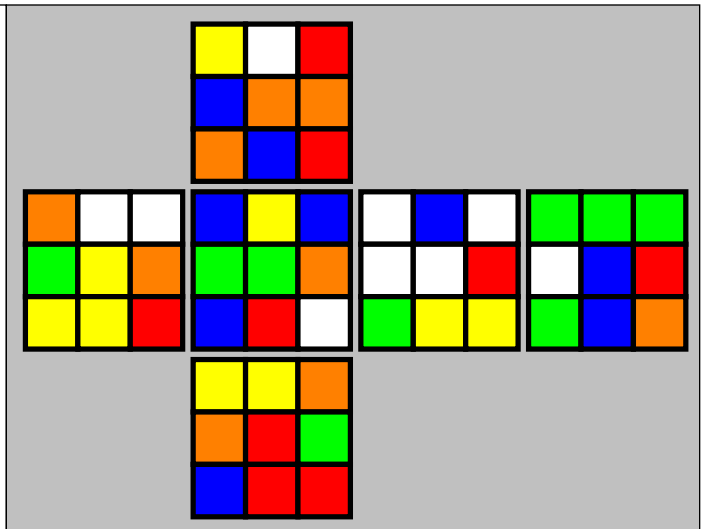
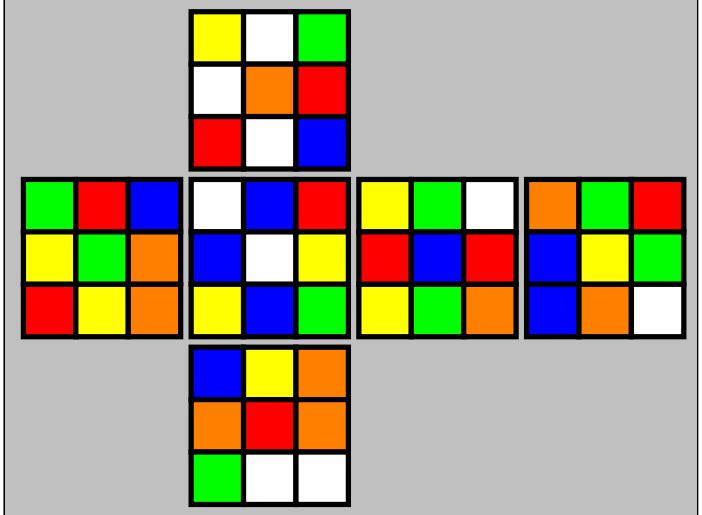
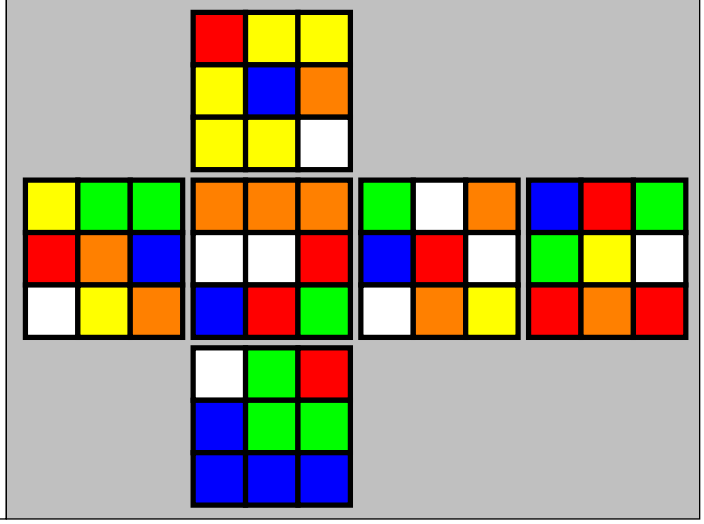
Bw' D'

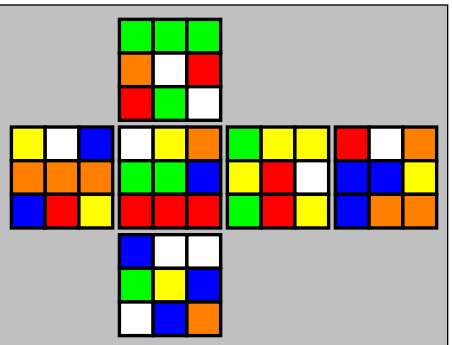
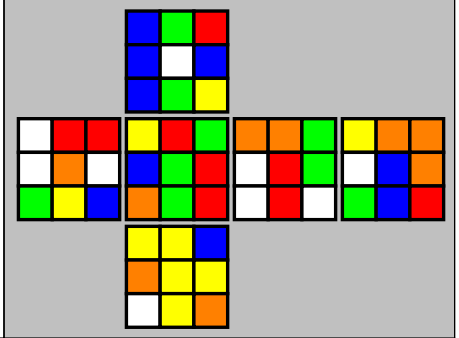
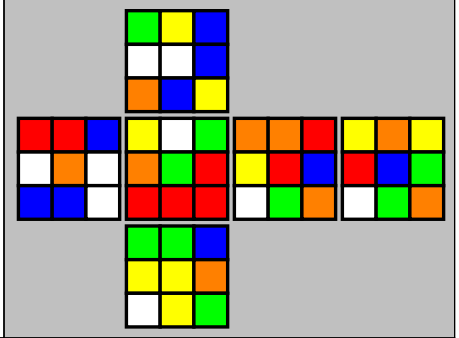
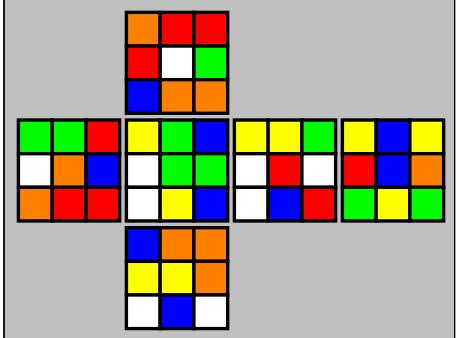
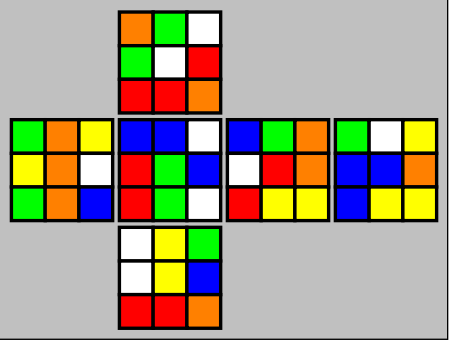


333bf
Scrambles for 2019-05-30

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

2019-05-30

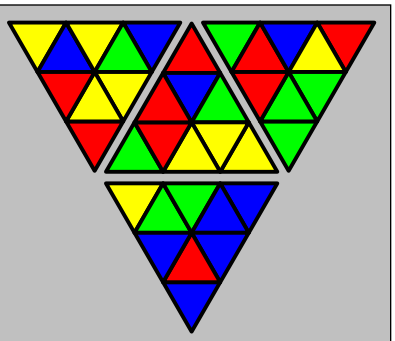
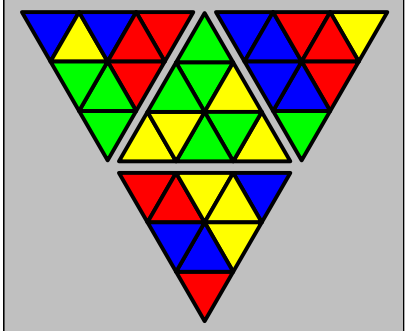
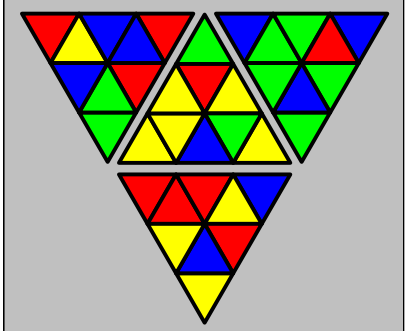
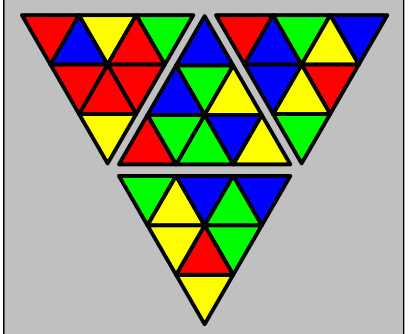
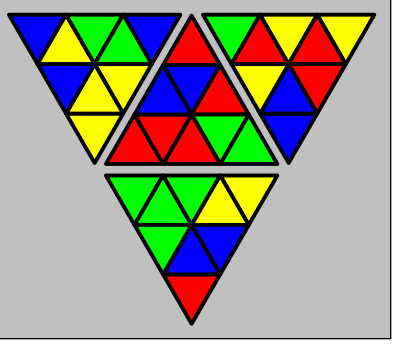
333oh
Scrambles for 2019-05-30

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

2019-05-30

pyram

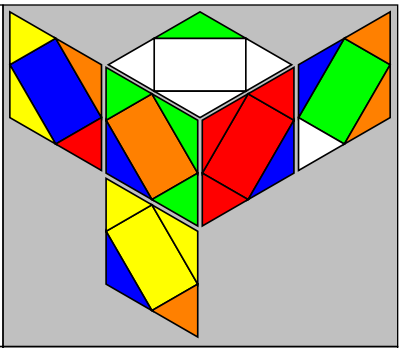
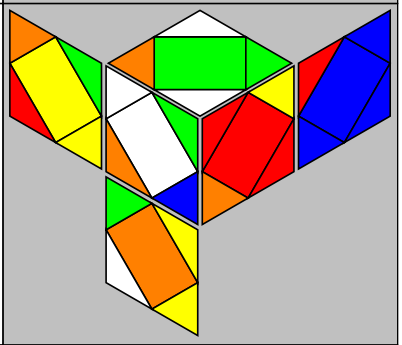
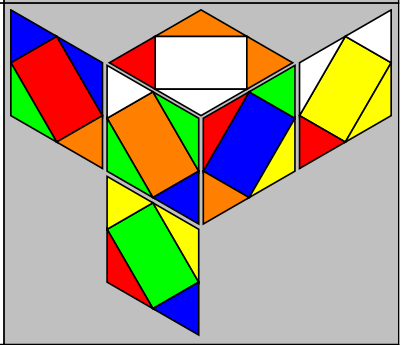
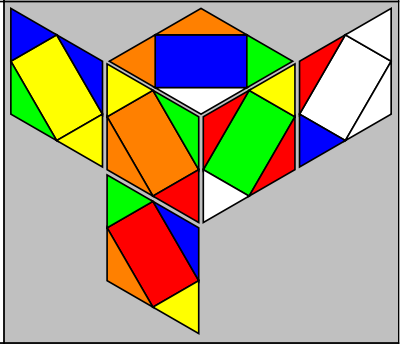
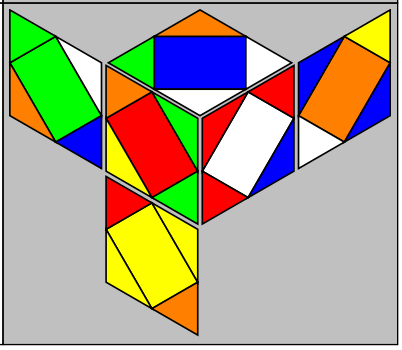
Scrambles for 2019-05-30

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

2019-05-30

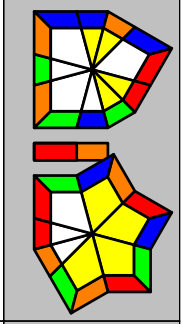
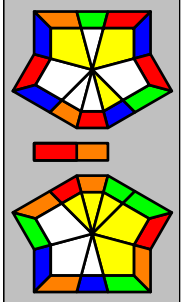
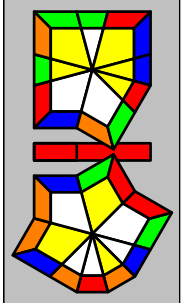
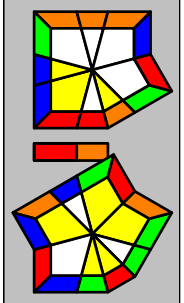
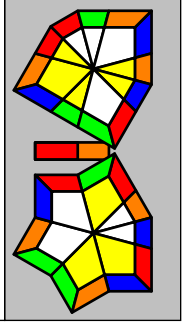
skewb

Scrambles for 2019-05-30

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

sq1

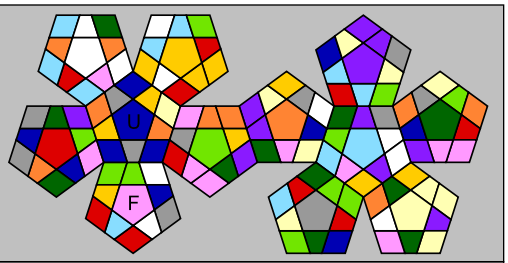
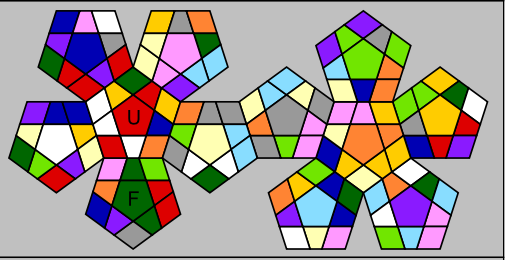
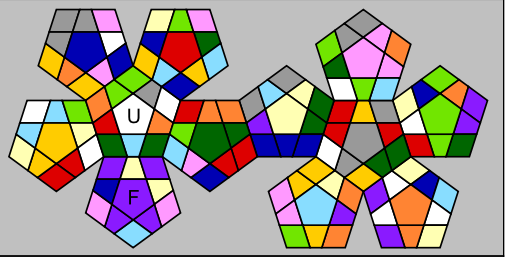
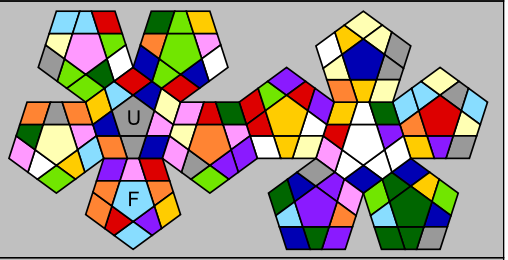
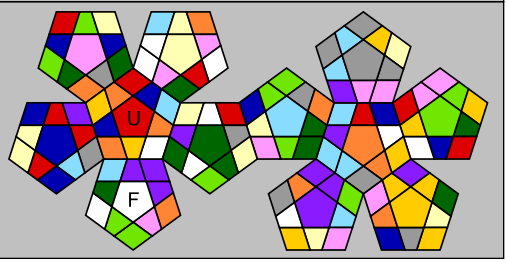
Scrambles for 2019-05-30

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

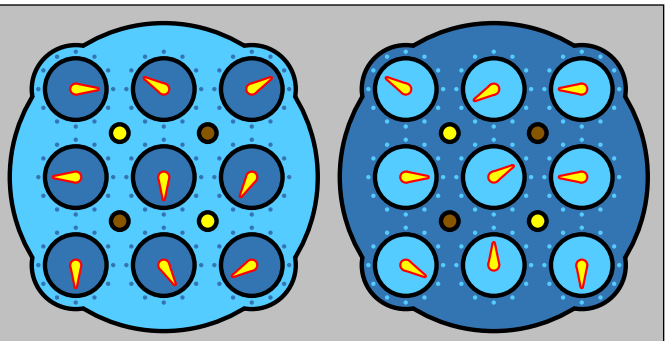
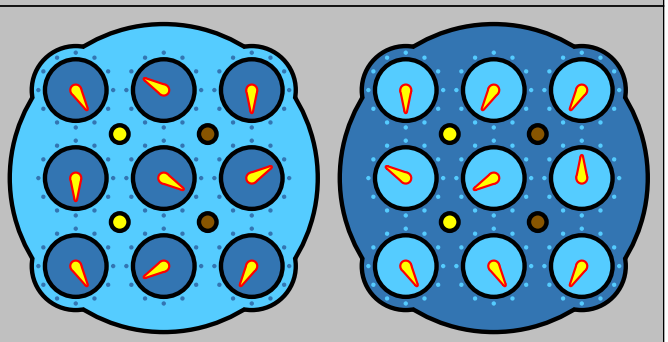
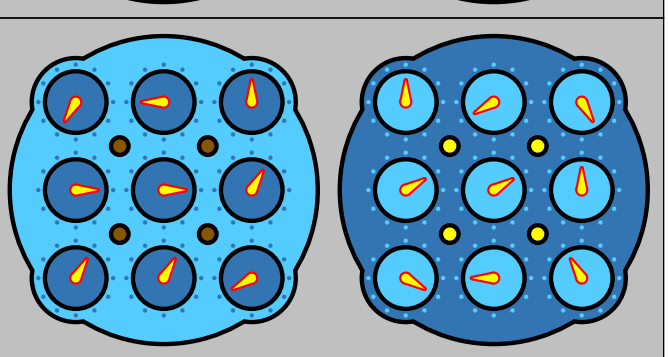
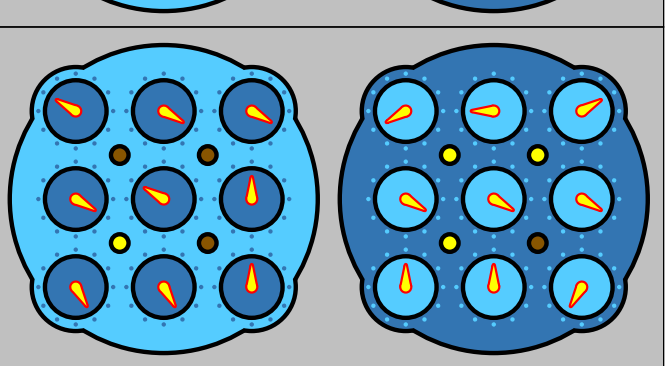
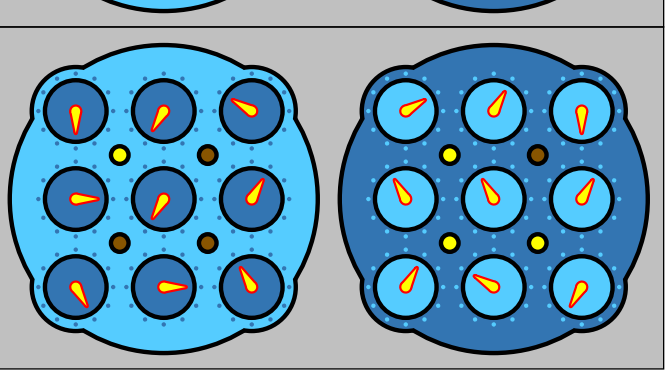
2019-05-30

minx

Scrambles for 2019-05-30

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 2019-05-30

1.	UR3- DR0+ DL5- UL5- U2- R2+ D1- L3+ ALL1+ y2 U1+ R3- D4- L1- ALL1+ DR UL	
2.	UR4+ DR5+ DL4- UL4- U3+ R1+ D0+ L4+ ALL1- y2 U4- R2- D6+ L2+ ALL2+ DL UL	
3.	UR6+ DR1- DL4- UL5+ U6+ R5- D1- L1+ ALL5- y2 U2+ R0+ D6+ L2+ ALL5+	
4.	UR5- DR5+ DL3+ UL6+ U3+ R0+ D1- L3+ ALL2+ y2 U5+ R6+ D6+ L2- ALL5- DL	
5.	UR0+ DR2+ DL6+ UL6+ U5- R2- D2+ L2- ALL4+ y2 U4+ R4+ D0+ L6+ ALL5+ 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]

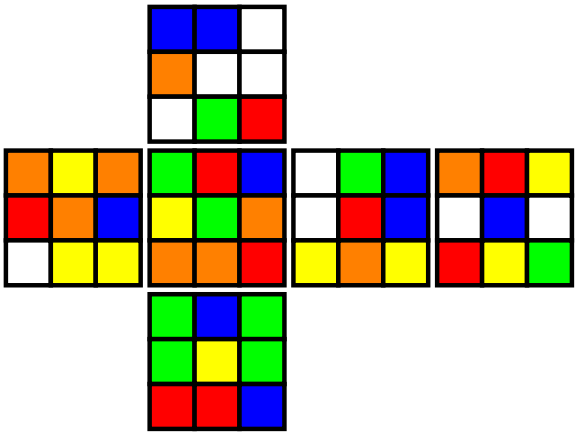
Scrambles for 2019-05-30
333fm

Competitor: _____

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

DO NOT FILL IF YOU ARE THE COMPETITOR.

Graded by: _____ Result: ____



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

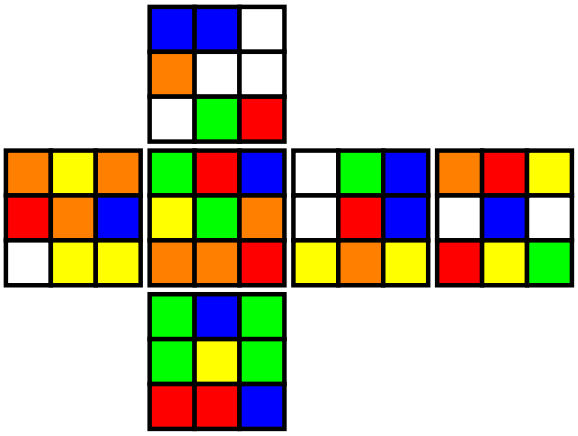
Scrambles for 2019-05-30
333fm

Competitor: _____

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

DO NOT FILL IF YOU ARE THE COMPETITOR.

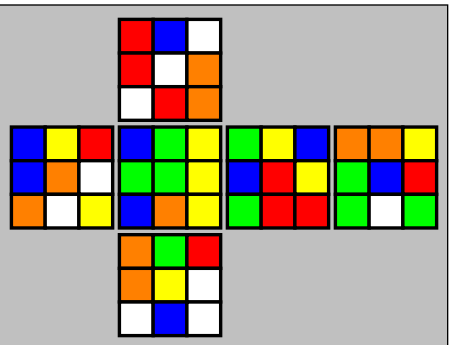
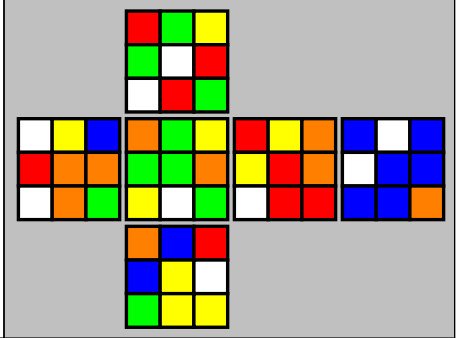
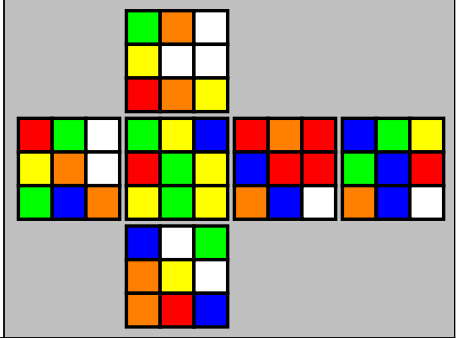
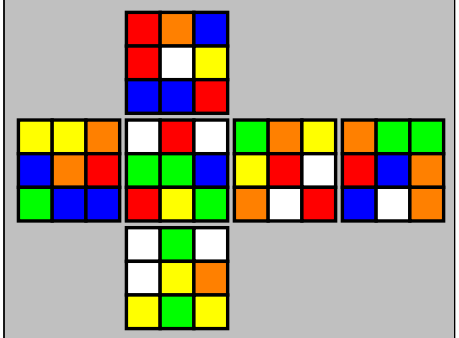
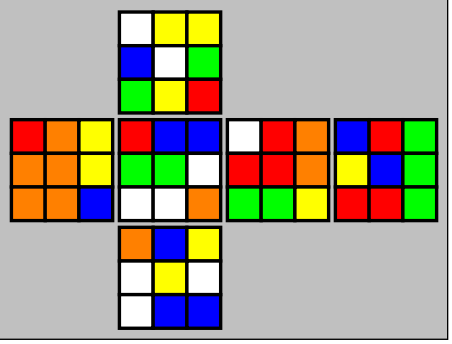
Graded by: _____ Result: ____



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

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

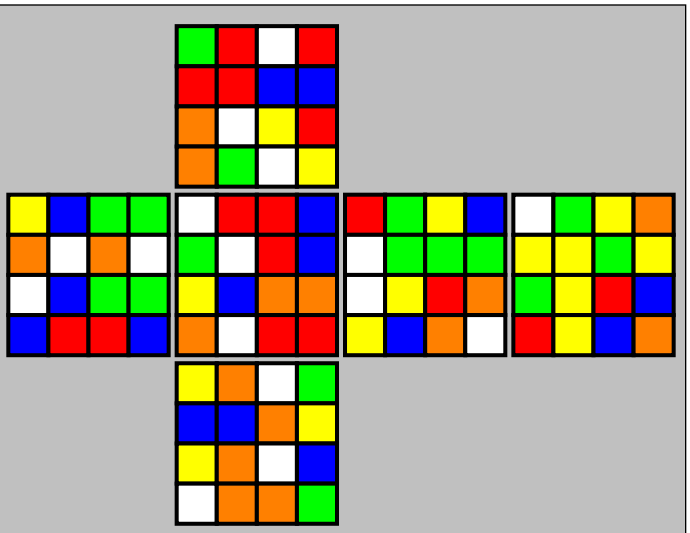
333ft
Scrambles for 2019-05-30

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

444bf
Scrambles for 2019-05-30

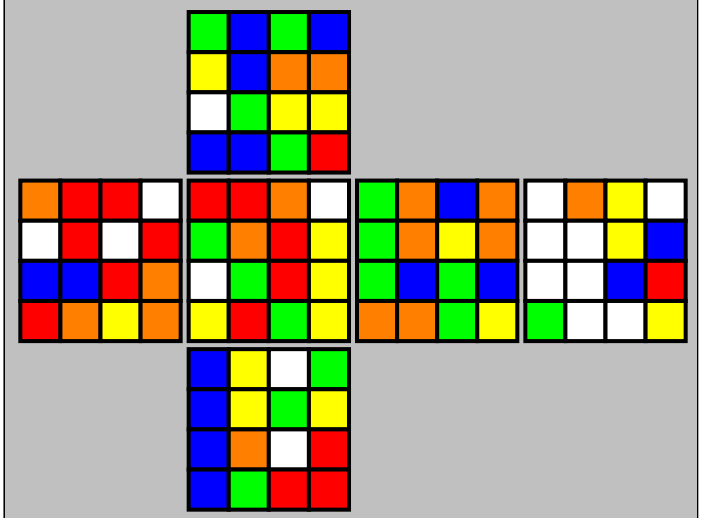
1.

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



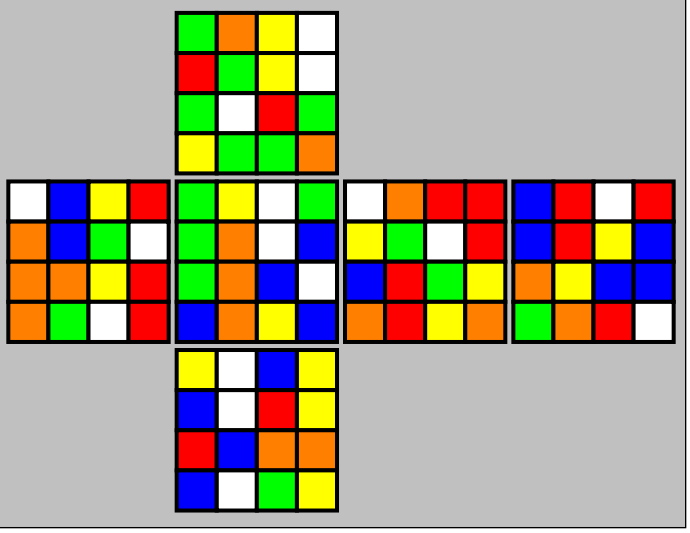
2.

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



3.

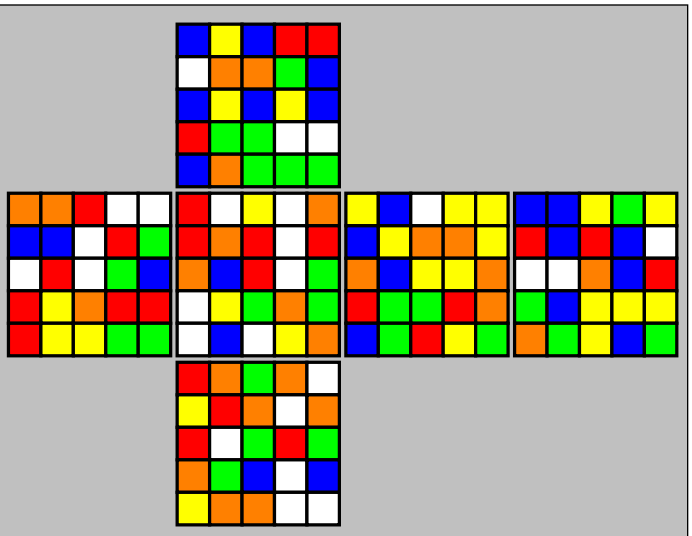
L' B2 D R' U
R2 L B' U2 B
L2 U2 F2 L2 U
L2 B2 U' R2 Rw2
U2 F' Uw2 Fw2 U'
R2 Uw2 U' F Rw2
Fw2 Rw' R Uw2 U'
B2 F2 Fw' Uw' L2
Fw2 D' Fw' U' x2
y'



555bf
Scrambles for 2019-05-30

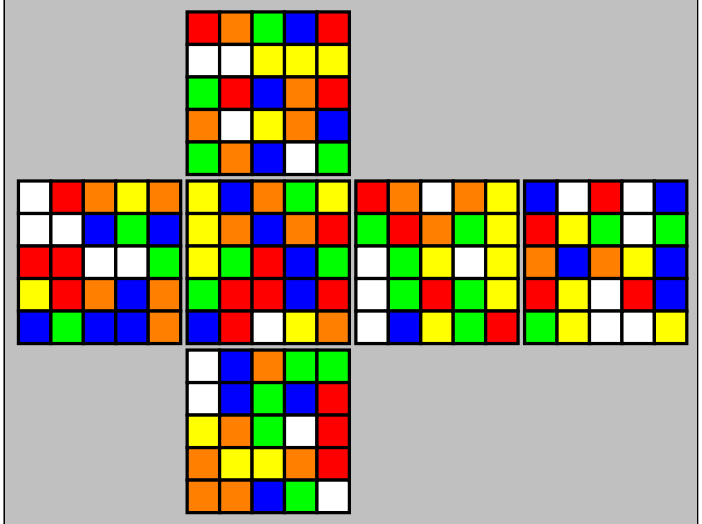
1.

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



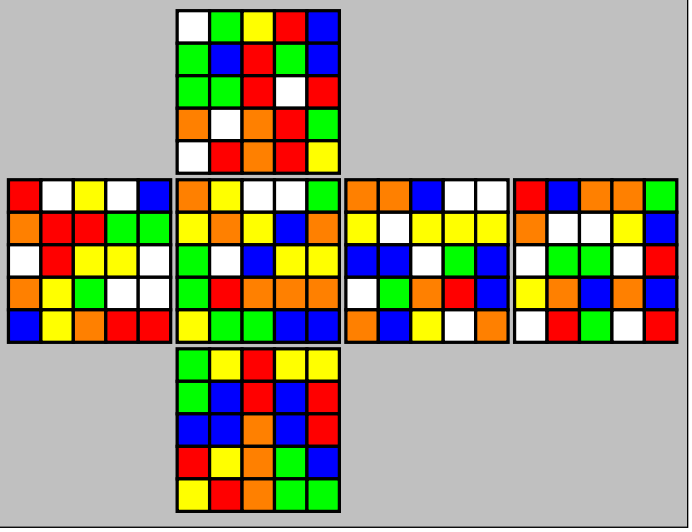
2.

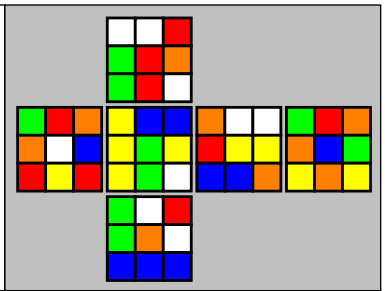
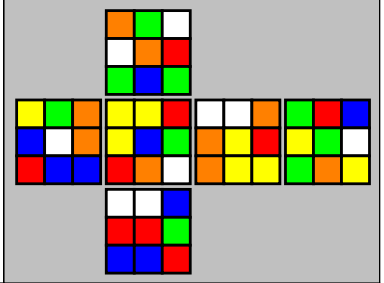
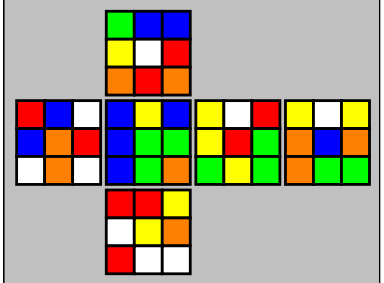
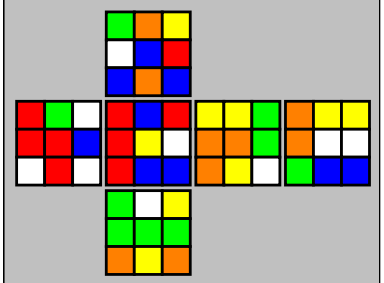
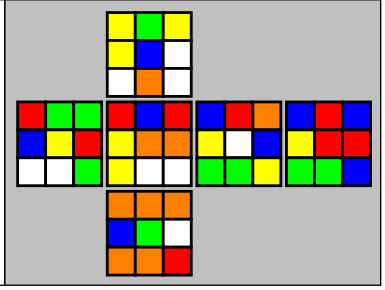
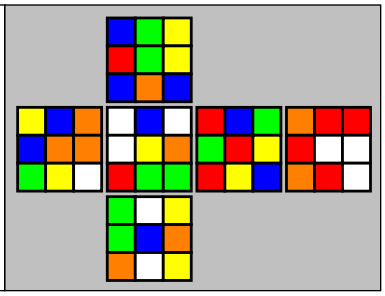
F	U	B2	D	B2
Dw'	B'	Dw'	Uw	Rw
B	D	Dw2	F'	Uw
Bw2	L	Rw	Dw	R'
Lw'	D	Rw	Bw	Dw
B'	L	Fw2	L	B'
F2	U	Fw2	F'	R
L	Fw	B	Uw2	U'
Dw'	D	Rw2	Lw	R
D	Bw2	Rw'	Lw'	B
D2	Uw'	Dw2	Lw	U'
Dw	Rw'	Uw	L	R'
3Rw'	3Uw			



3.

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



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

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