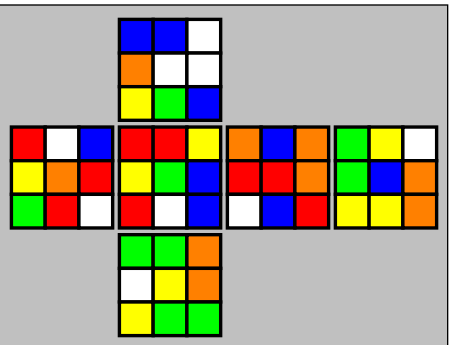
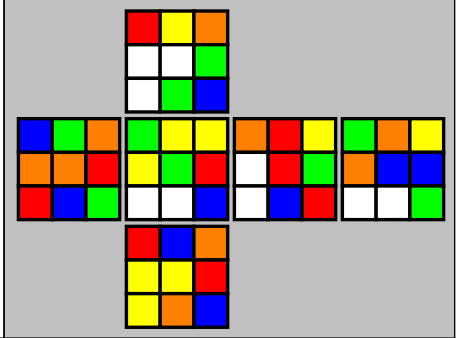
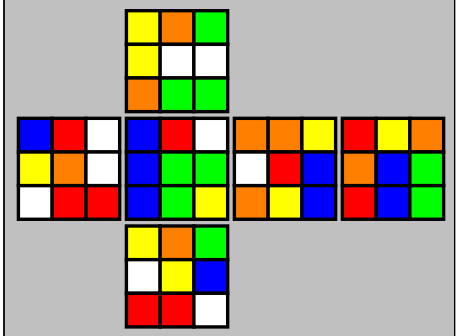
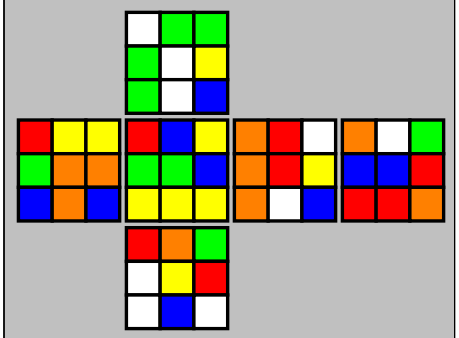
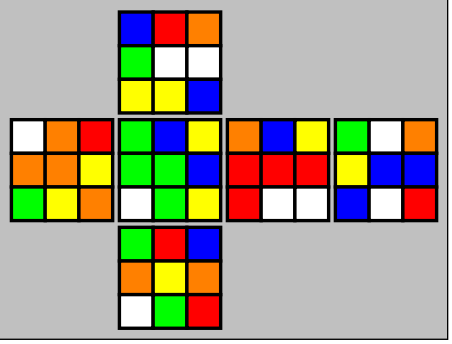
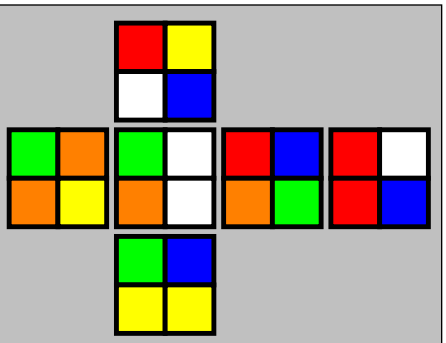
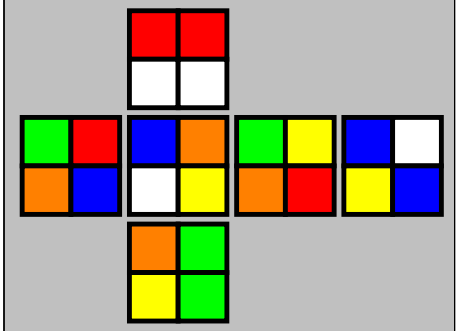
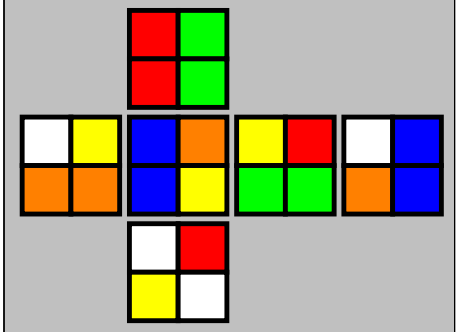
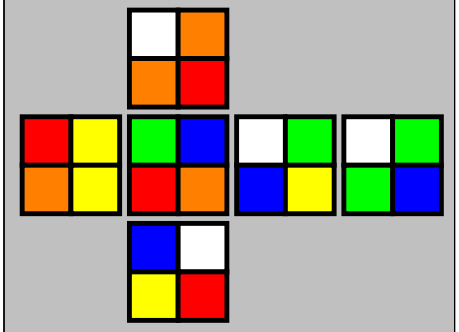
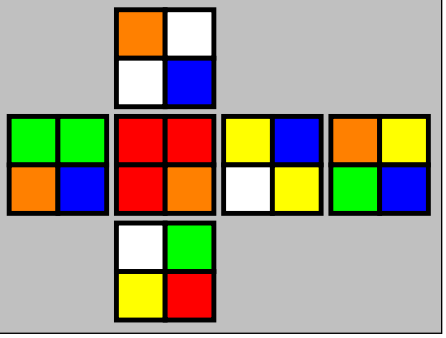
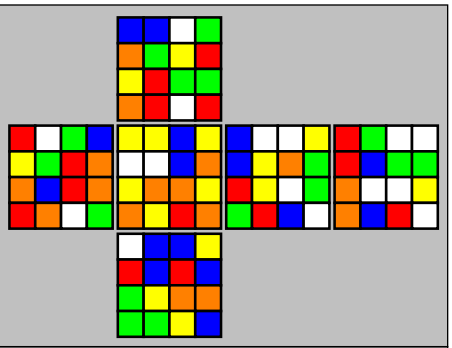
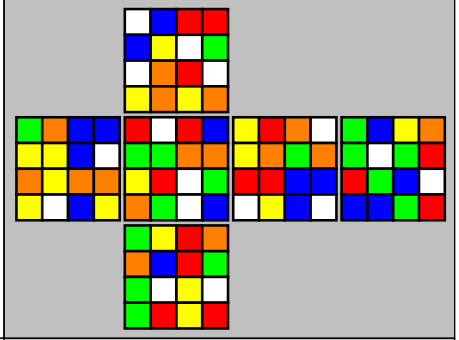
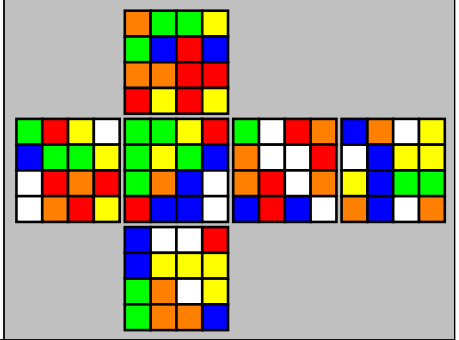
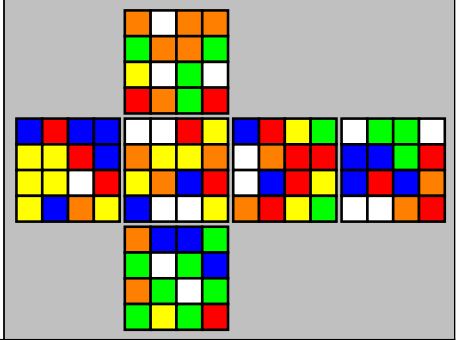
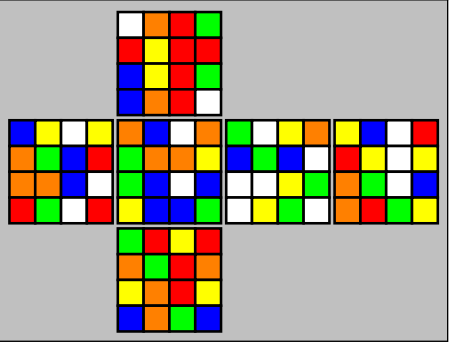
333
Scrambles for 2019-05-20

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

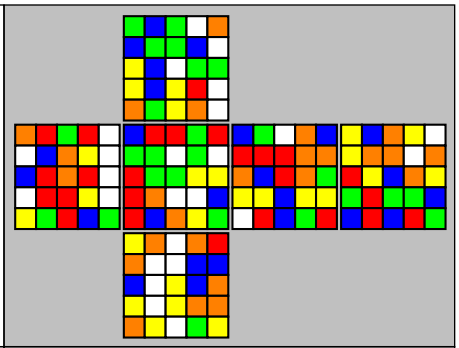
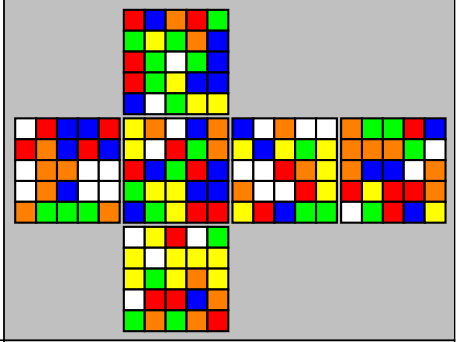
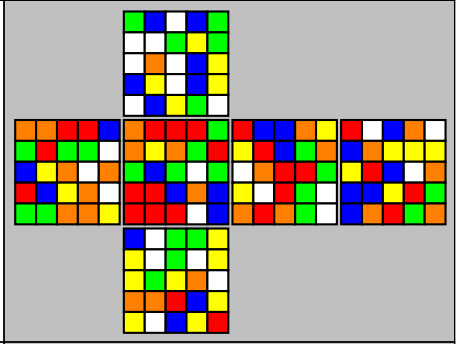
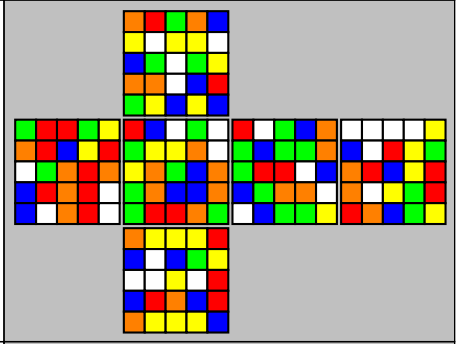
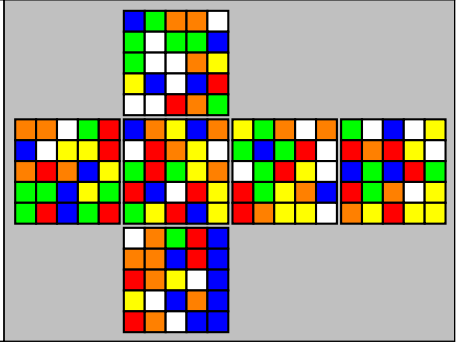
Scrambles for 2019-05-20

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

Scrambles for 2019-05-20

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

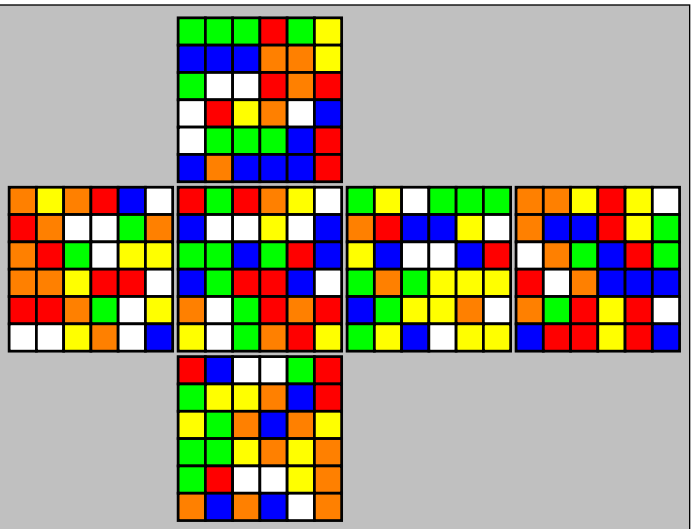
555
Scrambles for 2019-05-20

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

Scrambles for 2019-05-20

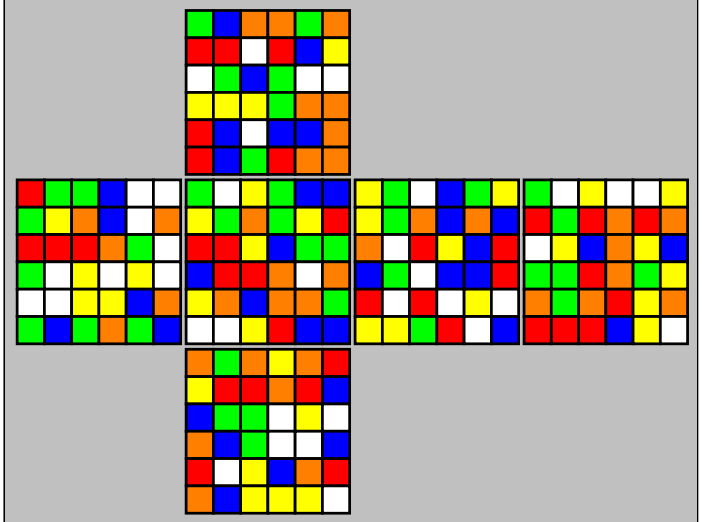
1.

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



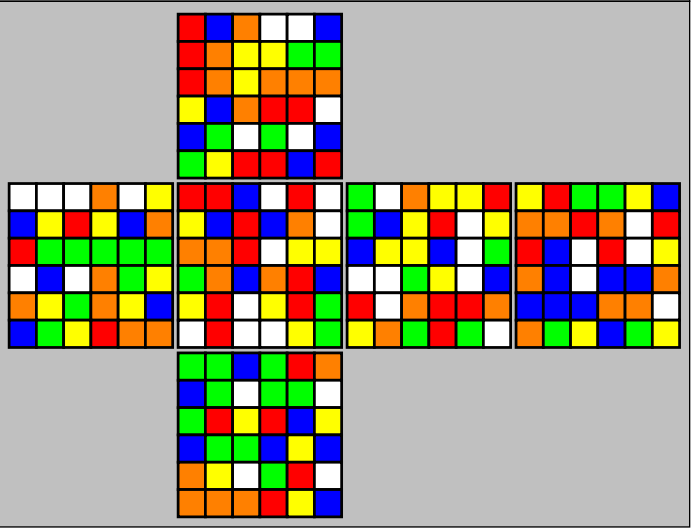
2.

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



3.

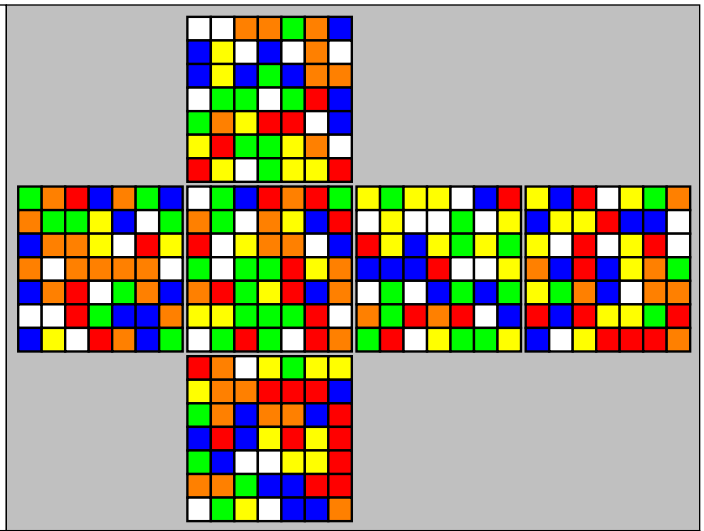
Rw2 3Rw2 D2 Rw 3Fw Lw
Fw F' Uw Dw2 3Fw' Fw'
3Rw' B' Rw U' F2 Dw2
L' Lw2 B' F' Dw R2
L2 Bw R Rw2 L2 Bw2
B' D2 3Rw Rw' F2 Fw'
L' R2 Fw' Bw' Rw2 3Fw2
Bw' Dw' L 3Rw2 U D
3Fw Dw' U2 R Fw D2
Rw2 Dw2 L' Dw' D' 3Fw'
3Uw2 U Dw' L Dw L2
Fw2 3Uw2 U2 Rw' Bw R
Uw2 U' 3Fw2 D' Fw F'
Rw2 3Uw



Scrambles for 2019-05-20

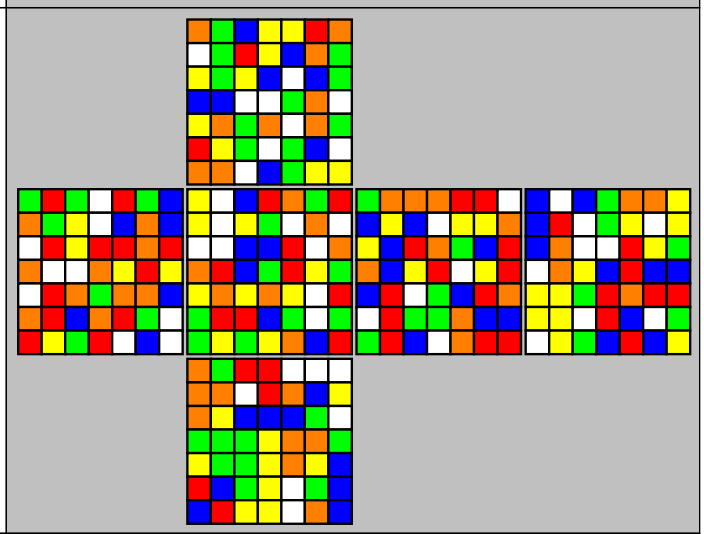
1.

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



2.

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



3.

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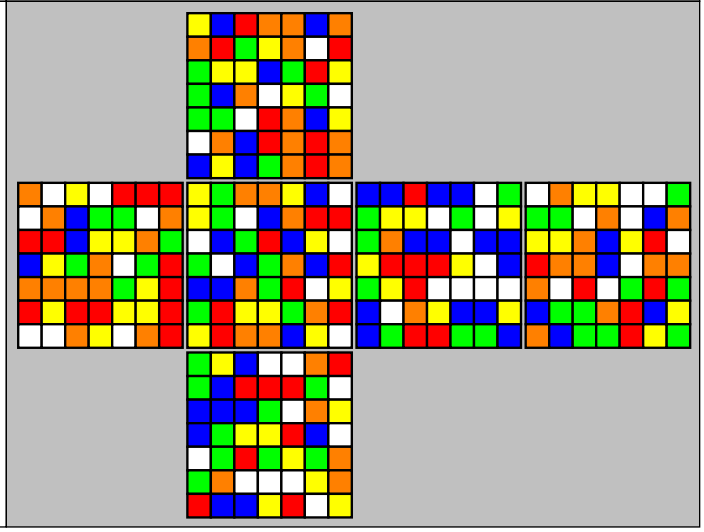
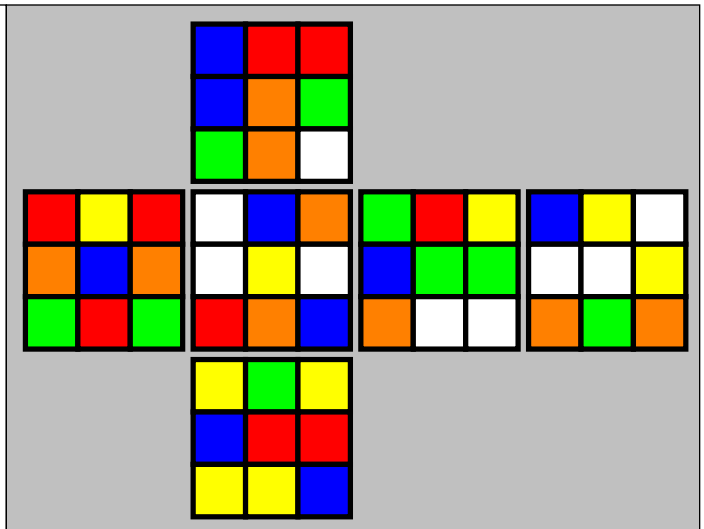


333bf
Scrambles for 2019-05-20

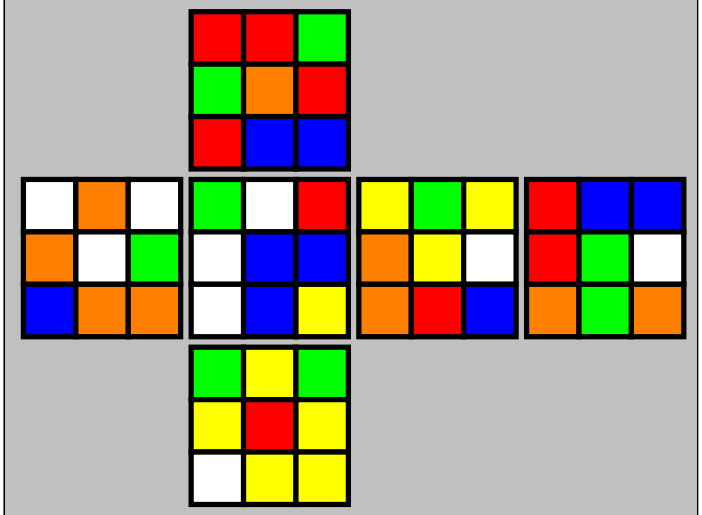
1.

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



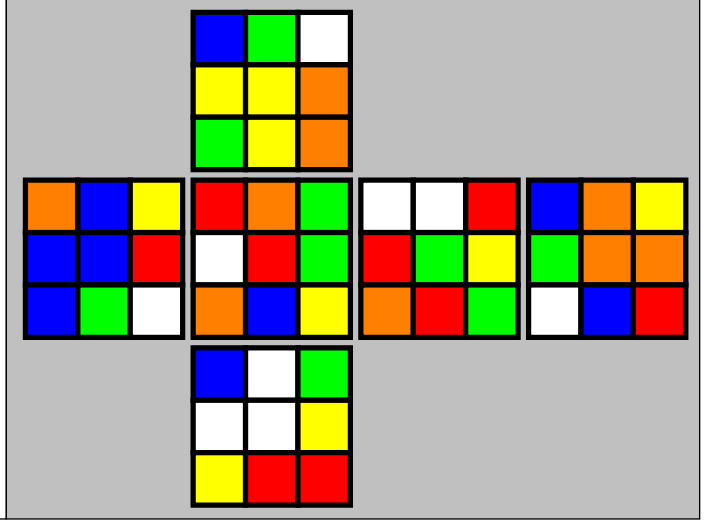
2.

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



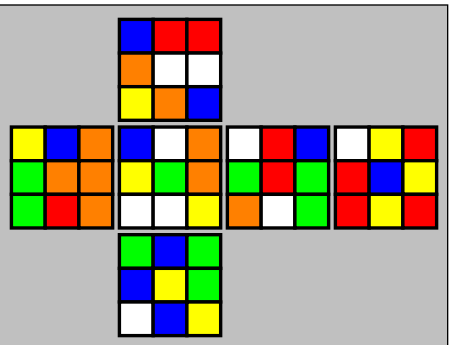
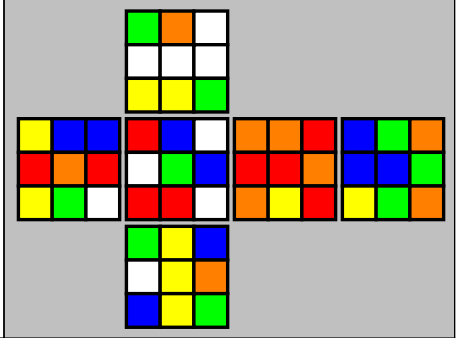
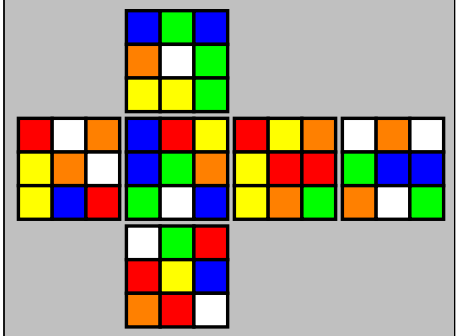
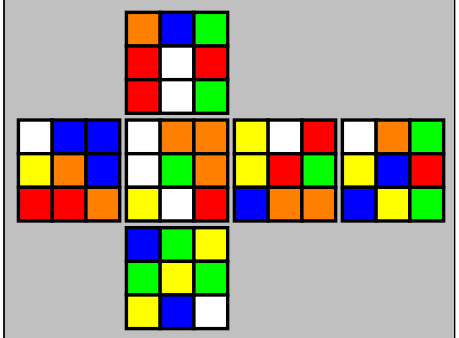
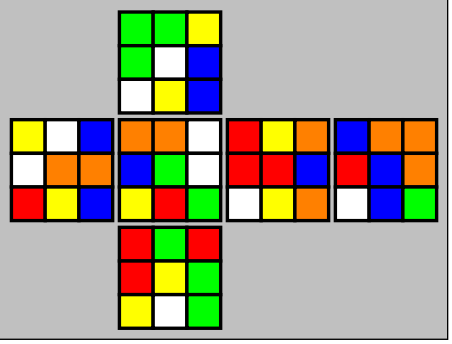
3.

B D2 B2 U2
L2 R2 B R2
D2 F R U2
B' R U' F2
R' D2 L2 B'
Rw2 Uw



2019-05-20

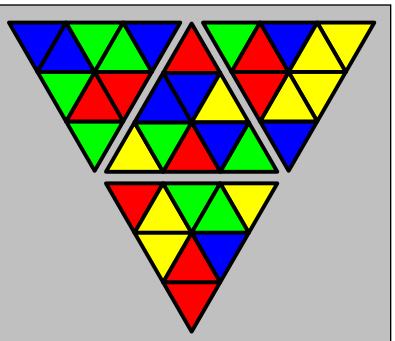
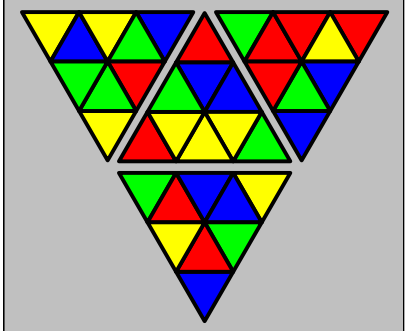
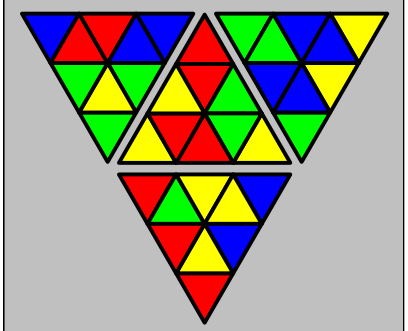
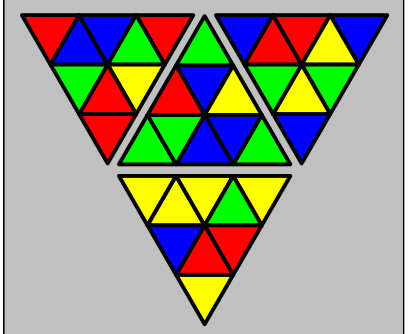
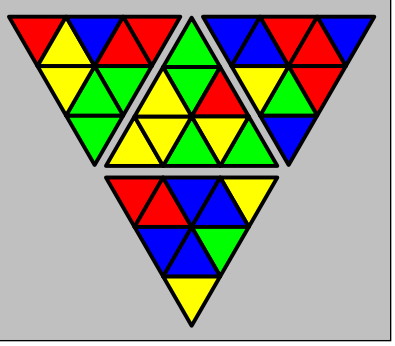
333oh
Scrambles for 2019-05-20

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

2019-05-20

pyram

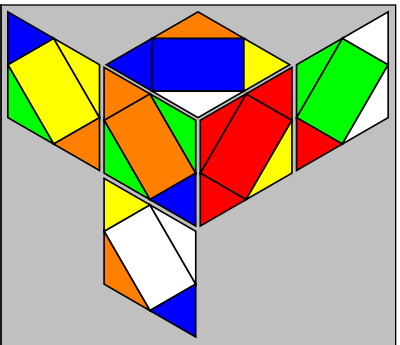
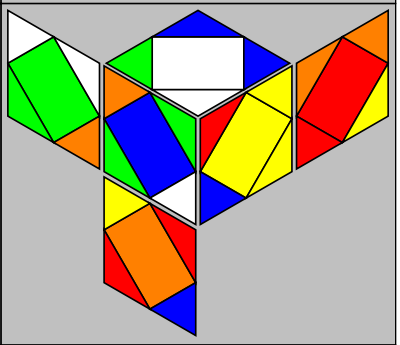
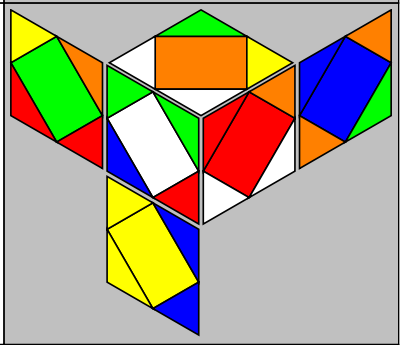
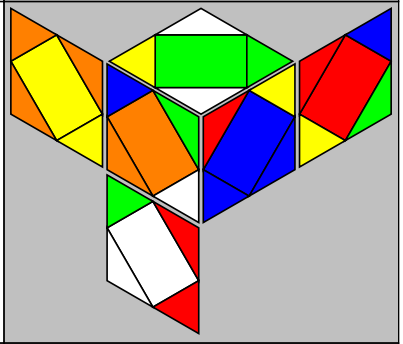
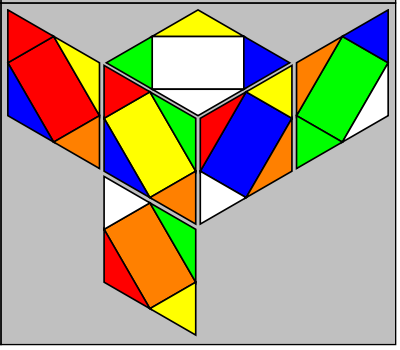
Scrambles for 2019-05-20

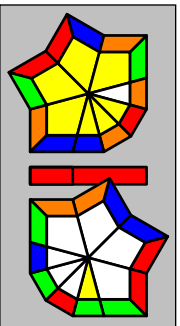
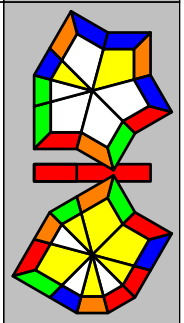
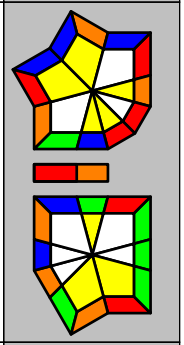
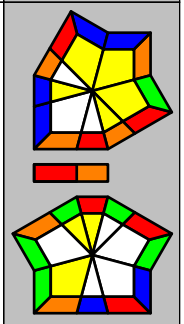
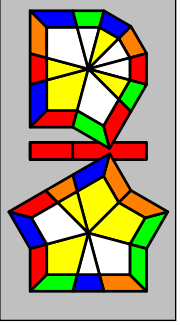
1.	U' L' R B' R L' R L' R' U' B' u l' r	
2.	R' U' L' R U R' B U L' R' L u l' r' b	
3.	B' U' B R' U B R' L U' B' R' l r b	
4.	L R U' B' R L' U R' U B' R u' r b'	
5.	R U B R' U' R' L' B' R B' R r' b	

2019-05-20

skewb

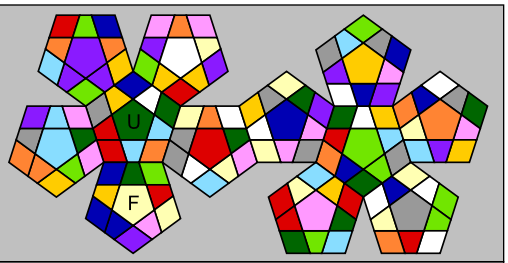
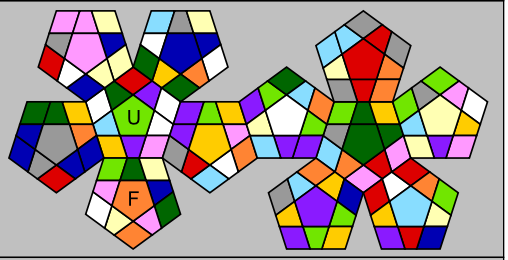
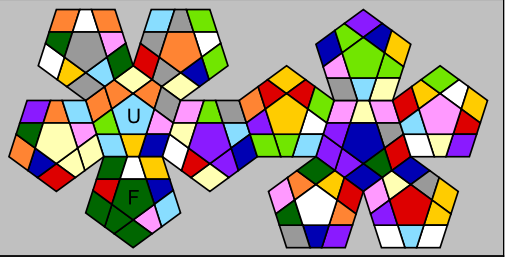
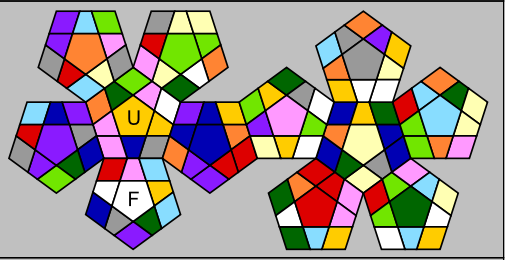
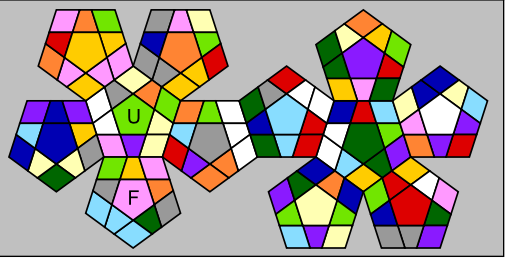
Scrambles for 2019-05-20

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

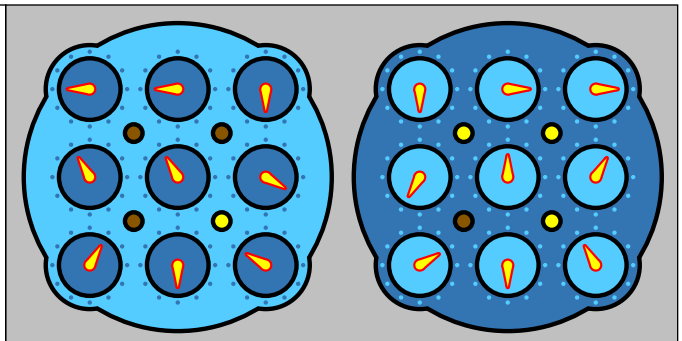
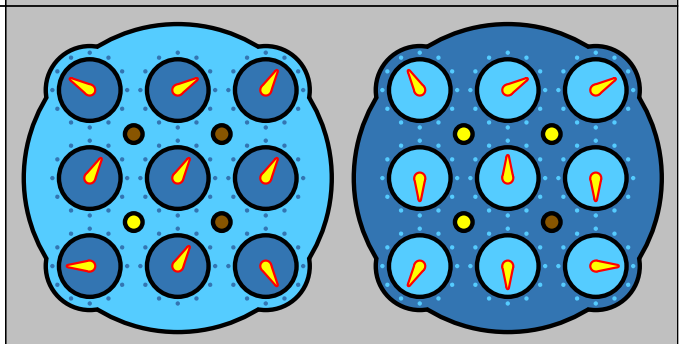
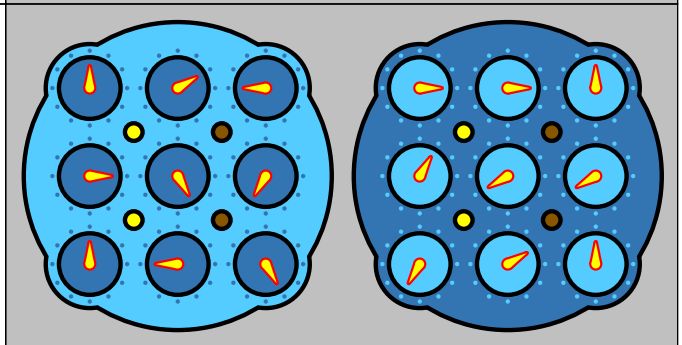
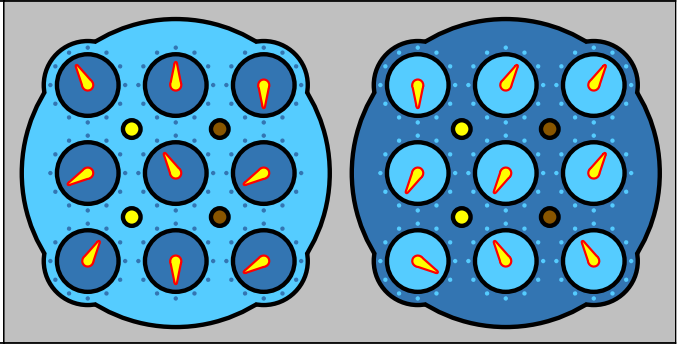
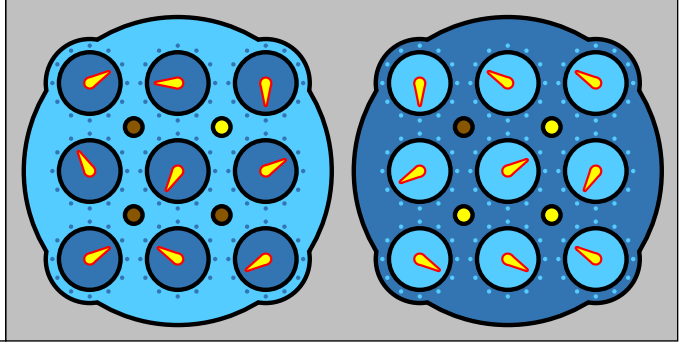
1.	(-2,-3) / (5,-4) / (4,-5) / (-4,-1) / (4,-2) / (0,-1) / (-3,-3) / (3,0) / (-4,-4) / (-4,0) / (-2,-4)	
2.	(-5,0) / (-4,-1) / (3,0) / (-3,-3) / (-3,0) / (-5,-2) / (0,-4) / (-3,-3) / (-3,0) / (-4,0) / (-2,0) / (0,-2) /	
3.	(-5,0) / (5,-4) / (3,-3) / (-2,-5) / (-4,-4) / (-5,0) / (0,-3) / (0,-2) / (0,-1)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

2019-05-20

minx
Scrambles for 2019-05-20

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 2019-05-20

1.	UR0+ DR2- DL4- UL2- U4- R5- D3+ L5+ ALL3- y2 U5+ R0+ D2+ L5- ALL3- DR	
2.	UR4- DR5+ DL4- UL4+ U6+ R5+ D3- L6+ ALL3- y2 U0+ R0+ D1- L0+ ALL2+ DL	
3.	UR1- DR1- DL3- UL5+ U2+ R3- D3- L2- ALL2+ y2 U4- R2+ D3+ L2- ALL6+ DL UL	
4.	UR4- DR2+ DL3+ UL3- U3+ R2+ D1+ L6+ ALL3- y2 U5+ R3+ D1- L3+ ALL1+ DL UL	
5.	UR1- DR6+ DL4- UL3+ U4- R1+ D2+ L4- ALL3+ y2 U3- R4- D2- L5+ ALL1- UR	

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]

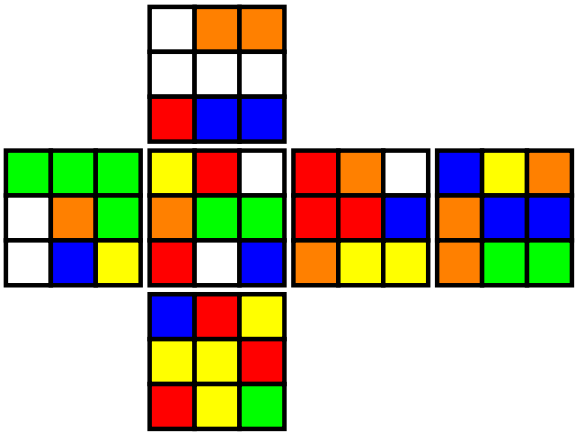
Scrambles for 2019-05-20
333fm

Competitor: _____

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

DO NOT FILL IF YOU ARE THE COMPETITOR.

Graded by: _____ Result: ____



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

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

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]

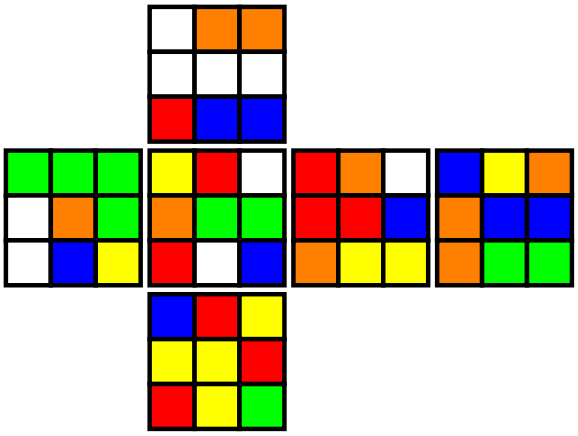
Scrambles for 2019-05-20
333fm

Competitor: _____

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

DO NOT FILL IF YOU ARE THE COMPETITOR.

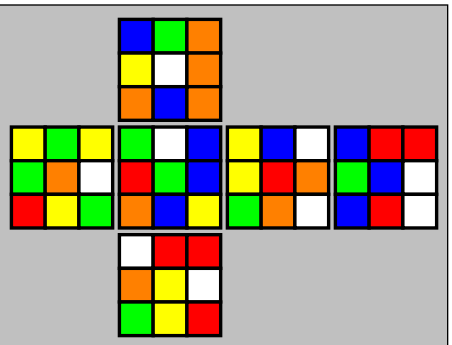
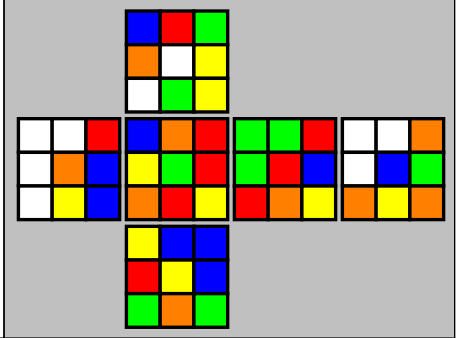
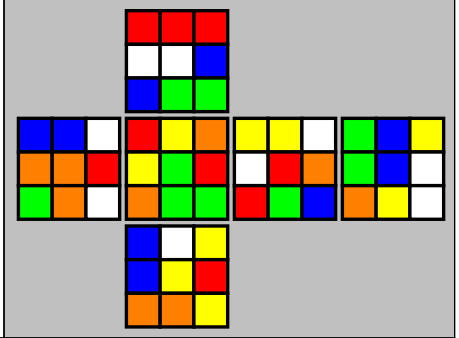
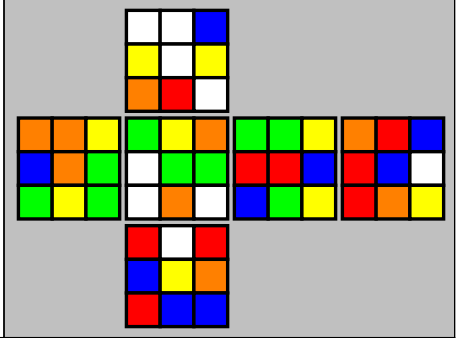
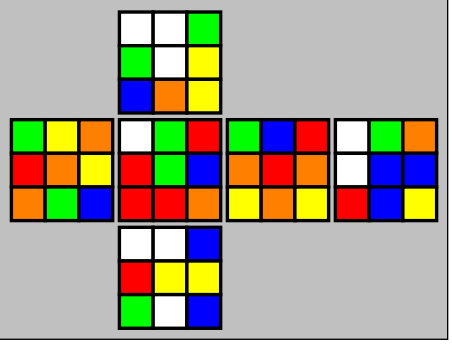
Graded by: _____ Result: ____



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

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

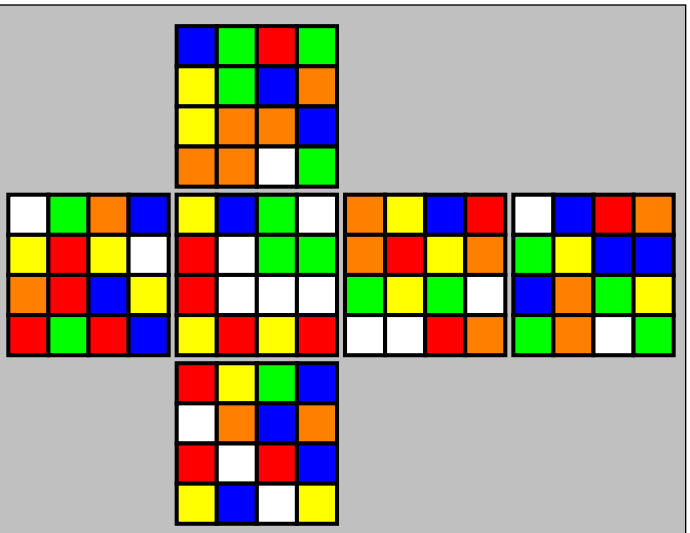
333ft
Scrambles for 2019-05-20

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

444bf
Scrambles for 2019-05-20

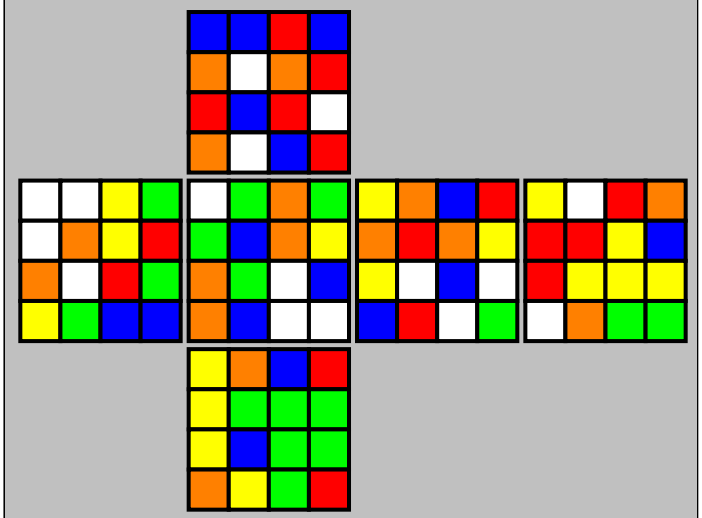
1.

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



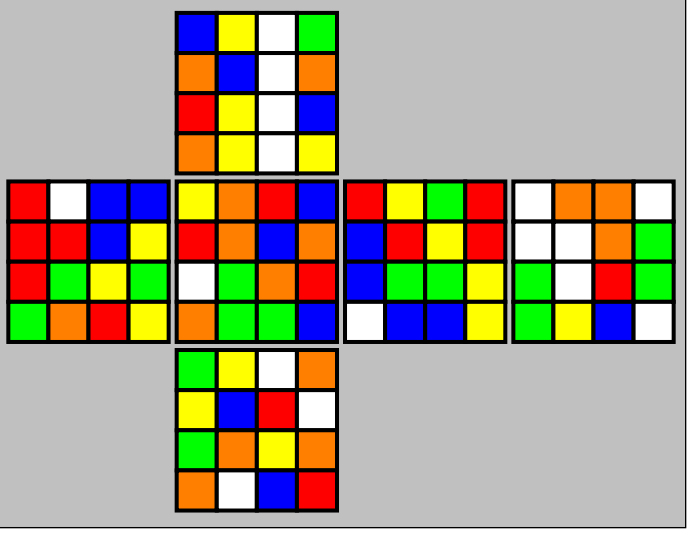
2.

U' L2 D R2 F2
L2 D2 R2 F2 D2
B U' B' L U'
F R' B' L B2
U2 Fw2 R2 D' Rw2
Uw2 R' D2 R D'
R' L2 Uw2 Fw D
L R' Fw2 B2 Rw
Fw' D' Fw L F2
Rw x y2



3.

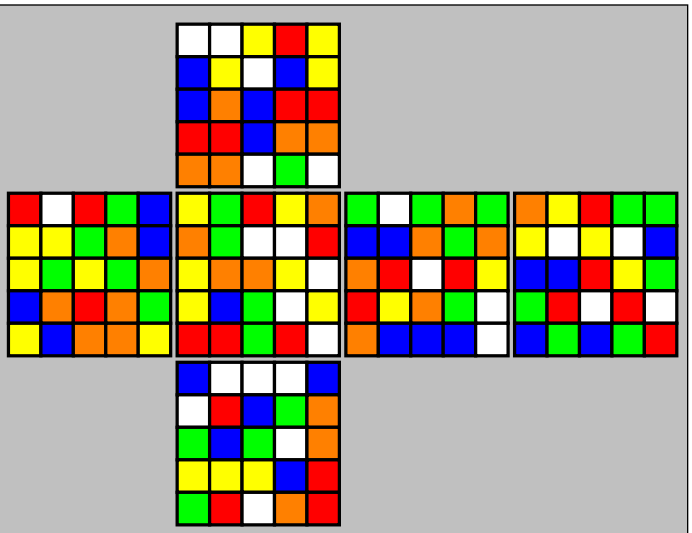
F2 U2 R' D2 F2
B2 R F2 L' F2
R2 B L' F B2
U R D F R
F Fw2 R' D Rw2
D Fw2 U2 L' D'
R2 L2 U Fw' L
Fw2 B2 R' Uw2 Rw'
Uw' B2 Rw' L R
F' z y



555bf
Scrambles for 2019-05-20

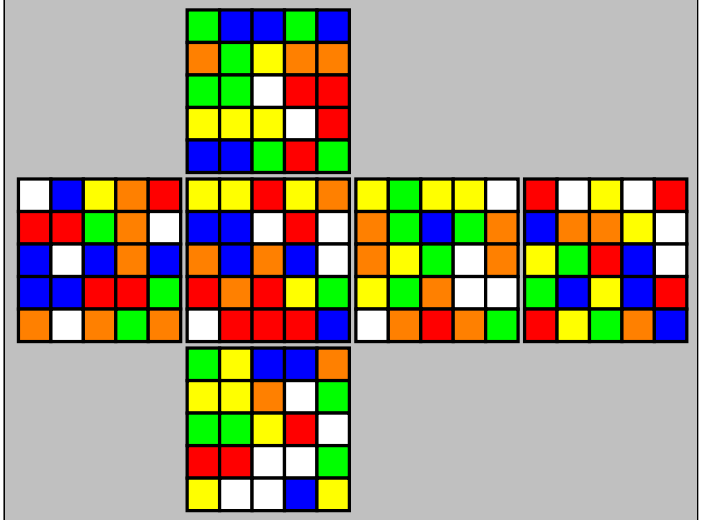
1.

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



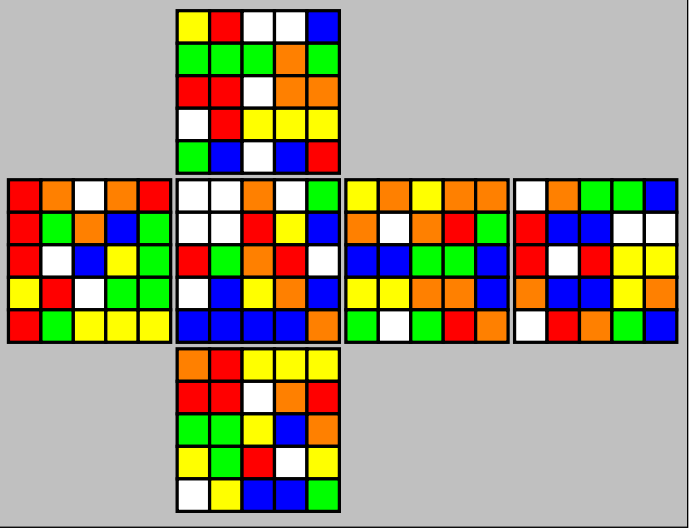
2.

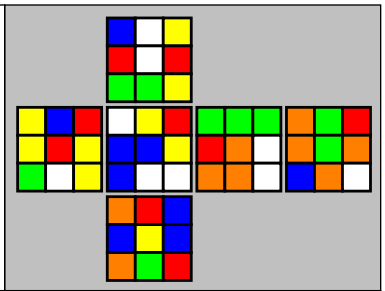
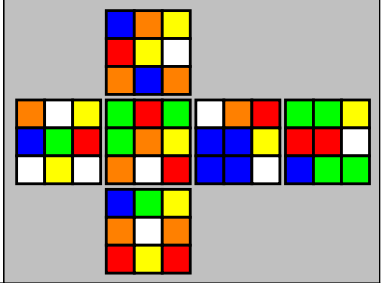
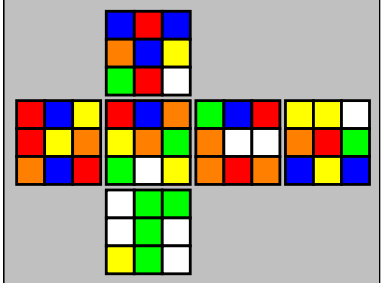
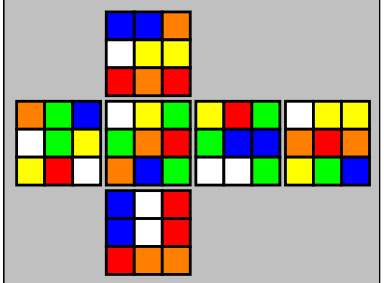
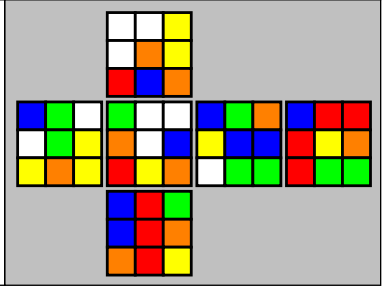
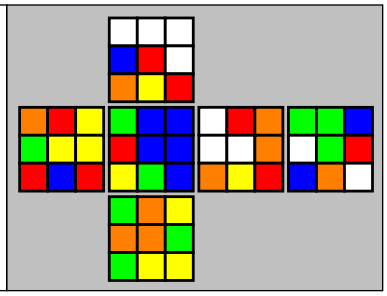
Uw D2 F L2 R
Dw Bw Uw2 F Rw2
Uw B D' Uw' L2
U Bw2 D2 L Lw2
B2 L F2 U' Bw2
Rw L' Bw2 R2 Rw'
U R B R2 Dw2
F2 Lw Bw R2 Rw
B Uw' Fw' Lw' L2
D' Dw2 L D2 Rw2
Bw U2 B' Dw Lw
D2 L2 Uw' Rw Fw'
3Uw'



3.

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



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

6.	D2 F U2 L2 U2 L2 B2 F2 L' B2 F' L F2 D2 B2 U' B' D' U Fw' Uw2