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

1.	R' F' R U' R U2 F' R2 U2 F' U2	
2.	U2 R' U R' U2 F U' F R U R'	
3.	U'RU'R2U'F'R'F'RUR	
4.	F U' F R2 U' R' U' R' F' U' R2	
5.	U F R2 U' R' U R2 U' R2 U' F	

444 Scrambles for 2019-05-17

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

1.	L' R' Lw' Rw B2 U	B Dw U L F Fw Uw	U2 R' F2 Dw' Fw' Rw Bw2	Lw L U' B' R2 Dw'	Bw' Bw2 B2 Bw2 Bw2 D2 R	Lw' Lw2 Fw D L	RW L' R2 F Uw'	R B Bw' R' F' L2	U Rw' Lw2 U' Fw'	
2.	F Lw' Uw' Rw B2 Bw2 B	Uw' B2 D B D' Lw FW	DW F' B UW F D	L Dw L2 D2 Fw' Bw2 Rw'	Bw' R2 B2 Lw Uw' Dw F2	L' Dw2 U' D' Dw' R2 Fw	Lw Bw B' F Lw' F2	R2 F' Dw' Bw R' Dw'	BW DW2 R' L2 B2 U	
3.	Lw' Bw2 Fw2 F2 Fw' U	F2 U' RW D2 U' B' FW	L2 D2 R Fw' Dw' R2 Lw2	Dw' Bw2 F Lw' L2 B F2	Bw Lw Dw Fw2 D' R2 D'	R RW L' R2 U' B' Lw2	U' Uw' U2 Uw' F U'	D D Bw' U Fw2 L	R' U' Rw' R2 Lw2 Fw	
4.	F2 Dw' Rw2 F2 U2 L R'	Dw2 Fw2 F Fw2 Fw' Rw	Uw' Dw' Uw' B' D Bw U	F2 Uw U' Rw Dw2 Lw' Lw	Bw U Dw' Lw R' F' FW	Lw2 D' Rw2 U' Uw' D' Lw2	FW Lw2 B' R B2 Rw	B2 R Bw' Rw' F	Rw' B U2 F Uw B2	
5.	F' L Bw Dw Uw2 R' R2	L RW U2 Fw2 F2 Fw2 Dw2		R' Rw2 F Fw Dw2 Lw' D2	Uw F' Bw2 Bw2 D Dw2	Bw2 B2 Uw L Uw Uw' L'		DW FW D U' D	B L' F Rw Uw' B2	

666 Scrambles for 2019-05-17

Т	D	00:0			25: .2	
	Bw			Fw'	3Fw2	L2
	U'	3Uw	Rw2	D'	Lw2	Dw'
	Uw2	Bw	L2	3Rw2	3Uw2	R
	3Fw	Uw	Dw'	3Uw2	Lw .	L
	3Rw	3Fw2	Rw	Fw'.	3Rw'	Rw
	F	U	В'	3Rw'	R'	3Uw2
	Dw2	Lw2	U	L2	Rw2	3Rw
1.	B2	Rw	Dw2	Bw'	Lw2	3Fw
	Dw	В	Bw2	Uw2	Fw	Dw
	R	D	3Rw2	U2	Bw	F2
	R'	Fw'	Lw'	Uw2	Bw	3Fw2
	L'	3Uw'	Lw2	В	R	Fw2
	Lw	L	Rw2	R	U	В'
	U'	3Fw'			_	
$\vdash$	_					
	U2	F'	Uw	Lw2	L'	В'
	3Fw'	L'	D'	3Rw	Bw2	3Rw2
	D2	В'	3Rw2	Dw'	3Fw	Bw
	B2	Dw2	Fw'	D	Uw	3Rw2
	D	3Fw2	R'	L	F2	3Rw2
	U2	Lw'	B2	3Rw2	L2	R2
	Rw2	3Fw'	Lw2	3Rw'	3Uw	Fw
2.	Rw2	Fw	D'	3Uw	F2	R
	Lw'	3Fw'	Lw'	Uw	B2	L
	Lw2	3Uw'	В'	F2	Lw	Dw
	L	3Uw	3Fw'	F'	Uw	L2
	Bw	Rw2	R	3Rw2	3Uw2	Uw'
	R	D2	F'	LW	U2	R2
	Ü'	FW	•	LVV	02	112
	U	I VV				
	Bw2	R'	Lw	Uw	Rw2	Bw'
	3Rw'	В'	U	Rw2	F2	Fw
	U'	3Fw2	Dw	Lw'	F'	Uw'
	F'	Bw'	В'		D'	U
	3Uw'	3Fw'	Fw'	Lw	L2	Fw
	Lw'	В	Uw'	3Uw	Lw2	Uw
	L'	Uw2	L	B2	3Rw'	R
3.	Uw2	L	3Fw2		R2	3Rw2
	3Uw	Rw2	UW	F	U	D
	Dw'	FW'	F	R	D2	F
		3Rw'	U	3Uw'	Rw'	
	Rw L'				F	3Uw
		Lw'	3Fw	Bw2		RW
	LW	D'	Lw	3Fw'	В'	Dw'
	Uw'	3Fw				

777 Scrambles for 2019-05-17

1.	BW D' 3BW U' B2 3FW 3DW2 3UW2 DW' BW' F DW2 RW' 3UW' 3RW2	FW 3Bw' RW 3UW 3DW2 LW2 3RW2	3Dw	L2 D' UW F U 3BW' UW 3RW UW R F L' LW'	3UW 3RW' 3BW R' B 3DW 3UW' F 3LW2 D2 3FW2 UW F	Lw'	RW LW D 3DW' L' 3FW2 FW 3FW' RW 3DW' F' 3FW' LW R
2.	D2 Fw2 D' 3Bw2 Lw' Dw' 3Dw' 3Dw2 3Bw 3Fw' B2 3Bw' 3Fw' 3Fw' 3Lw' Lw2	3Dw' Uw R' Rw' 3Rw R2 Dw' FW L2 Lw U' U2 F 3Uw2 B'	F' Rw' 3Lw' D' 3Lw' D2 3Fw 3Dw' Rw' F Fw' 3Fw Bw' B2	3Lw' Bw D2 3Dw' Dw' 3Bw2 L' Dw' 3Bw 3Lw' Uw2 F2 Rw' L2	F Uw2 Rw2 Rw' Bw2 R2 FW Lw' Fw2 3FW Fw' 3Bw2 3Dw2 Dw'	R 3Bw U Fw2 FW U2 3Uw' Uw2 R' B' Bw2 3Lw' Rw Fw'	L2 UW B R' B' RW' FW2 LW2 B' D' 3UW R B2 3LW2
3.	L' Dw2 Lw' R 3Bw' L2 R' B' D 3Fw' BW D' 3Bw2 D2 Uw'	Bw' Rw' B Dw Dw 3Rw2 Lw2 3Lw	Uw2 F2 Fw2 Uw2 Dw2 F F2 B R' Lw D' F	Bw' 3Bw2 L Dw' Uw' 3Lw2 Dw F2 3Dw Fw2 R B2 Uw' U2	B2 3Uw2 3Rw'	Uw2 U 3Dw	Bw2 B2 3Bw B2 Uw 3Rw' 3Fw' B' D2 3Lw2 R2 Dw' L' B

## 333bf Scrambles for 2019-05-17

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

## 333oh Scrambles for 2019-05-17

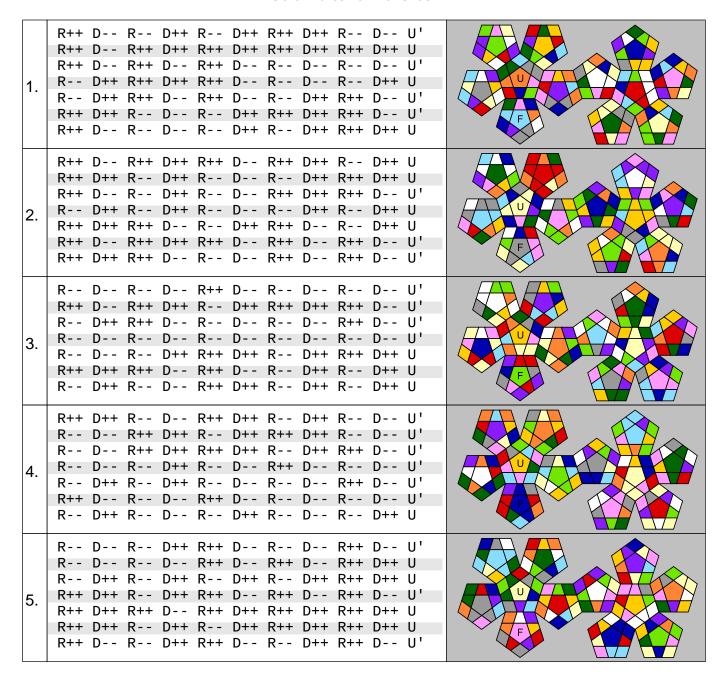
1.	B2	F	U2 L' F	D	F2 B	R' L	B2 R	R' B	
2.	F F' L2	L'	L' U F2	D' D B2			R2 U		
3.	D B F'	F' R U2		L2			R2 D2		
4.	R F F2	L'	U F				F2 L2		
5.			L D' B2						

1.	B'URL'U'R'URL'R'Uu'l	
2.	B' R' U' L' B R' L U R B' L' u b	
3.	BR'B'U'B'R'B'U'RLB'ur'b'	
4.	U R' B' R U' L R U' R' U' L' u' r' b	
5.	R B' L' U' R' B R U' R' U' B' u l r' b'	

1.	B U L' R U L R L B U B	
2.	RBRBUL'RU'L'B'U'	
3.	R B U' R B' R B' R U' R B'	
4.	B L R L' R' L U R L' B' L	
5.	LRBL'RU'LRBLR'	

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

#### minx Scrambles for 2019-05-17



	UR1+ UL1-	DR4+ U1-	DL1+ R3-	
	D2+	L2-	ALL2-	
1.	y2	U4+	R3+	
	D6+	L3-	ALL4+	000000
	DL DL	UL	/\LL	
			DI E :	
	UR4+	DR2+	DL5+	
	UL6+ D3+	U3- L1-	R3+ ALL1+	
2.		U4-	R2+	
	y2 D5-	L3-	ALL5-	
	UR	DL	UL	
	UR1-	DR1+	DL1-	600 600
	UL4-	U4-	R1-	
3.	D2+	L4-	ALL0+	
	y2	U5+	R5-	
	D5 -	L4-	ALL3-	
	UL			
	UR4-	DR1-	DL1-	
	UL2+	U2-	R3-	
4.	D1-	L2+	ALL5-	
	y2	U3 -	R3-	
	D2+	L1+	ALL3-	
	DL	UL		
	UR1-	DR4-	DL1+	
	UL3-	U0+	R2+	
5.	D1+	L4+	ALL2+	
.	y2	U1-	R5 -	
	D1+	L4+	ALL4-	
	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 В D Counter-clockwise F' U' B' L' D' Double F2 R2 U2 B2 L2 D2 **Rotations** Clockwise [f] [1] [d] [r] [u] [b] Counter-clockwise [f'] [r'] [u'] [b'] [l'] [d'] Double [f2] [r2] [u2] [b2] [l2] [d2]

## Scrambles for 2019-05-17 333fm

Competit	or:		_
WCA ID: _			
DO NOT FIL	L IF YOU A	RE THE COMPETI	TOR.
Graded by	/:	Result: _	

Scramble: R' U' F U2 B2 L' D2 R U2 R' U2 F2 U' R F D U L2 F U' L B U 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 В D Counter-clockwise F' U' B' L' D' Double F2 R2 U2 B2 L2 D2 **Rotations** Clockwise [f] [1] [d] [r] [u] [b] Counter-clockwise [f'] [r'] [u'] [b'] [l'] [d'] Double [f2] [r2] [u2] [b2] [l2] [d2]

## Scrambles for 2019-05-17 333fm

Competit	or:		_
WCA ID: _			
DO NOT FIL	L IF YOU A	RE THE COMPETI	TOR.
Graded by	/:	Result: _	

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


## 333ft Scrambles for 2019-05-17

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

444bf Scrambles for 2019-05-17

	F2	U'	L2	U2	R2	
	U	D2	L'	U	R	
	B'	D	_ L2	В	R2	
	D	B'	R	Rw2	Uw2	
	U2	B2	U'	Rw2	U'	
1.	Fw2	F	Uw2	U	В'	
	U'	Rw	D	Rw'	D	
	В'	Rw'	L2	Fw'	L2	
	Uw	Rw2	В'	U2	x2	
	у'					
	U	R2	U	L2	B2	
	U	R2	U	B2	D2	
	R2	В	U2	В'	R	
	D'	В	U'	F2	U2	
	Uw2	F'	R'	Uw2	F'	
2.	D2	В'	Uw2	R2	F2	
	Rw2	Fw2	U2	Uw'	R'	
	F'	Rw2	Uw	Rw2	F2	
	Rw	Fw	B2	R	Uw	
	Z	У				
	U2	L	B2	R'	F2	
	R'	D2	R2	U2	F	
	D2	F	D2	L	D'	
	R2	F	R'	Fw2	Uw2	
3.	F2	D	Rw2	B2	F	
	D2	Fw2	D'	Rw2	В	
	F2	R'	B2	Rw'	Fw'	
	U'	Rw	F	Uw	U	
	D	F'	Z	y2		

	R	L	I Ju	v2	Bw2	L2	
	Dw	Bw2			Dw'	F2	
	Bw	R2	- 0. L		Uw	Dw'	
	Lw'	L'	F		D	B2	
	F'	L	F		Dw2	F	
	R2	L	Bv		Fw	Dw'	
1.	Uw2	U'	F۷		Lw'	L	
'-	Rw'	Fw	U		Dw'	Rw	
	F	Lw2			Uw'	R	
	Uw2	U'	R		U'	F	
	Dw2	R2	L۷	V	U'	R2	
	Lw'	Fw2	2 B2	2	U2	L	
	3Uw2	2					
	Fw'	В2	Rv	٧	L2	B'	
	L	R	Rv		F2	Bw	
	Uw2	U'	Dv	٧2	F'	Dw	
	Lw	Bw	' D	1	F	D2	
	Rw'	L2	U		F2	B2	
	L2	Lw	' Fv	V	U2	Fw	
2.	R'	Lw	' Fv	۷'	Uw	Rw'	
	Lw2	Fw2			Dw'	F	
	Rw'	L2	D		F2	Rw	
	R2	D	F۷	٧2	F'	R	
	Dw'	U	Uv		R'	Rw	
	Dw'	D		٧2	R'	L	
	3Rw	' 3Uv	٧2				
	Fw	U'	Dw	Lw2		Uw	
	F'	L2	Bw	Rw	Dw	R2	
	Bw'	Lw2			Dw2		
	R'	Dw'	Fw2		Uw2		
	U2	В'	D	Uw2			
3.	Fw .	Rw	В	Uw'			
	Rw'	В'	U'	Dw	Fw2		
	B2	Dw'	Lw	Dw'	Bw	U	
		Fw'	U	F2	R2	L2	
	U	Bw2	Fw2	Rw	U	Uw	
	3Uw						

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

