

OLL 21



3x3 - OLL - OCLL

setup:

RUR'URU'R'URU2'R'y'







Standard Alg:

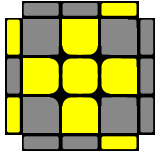
(RUR'U)(RU'R'U)(RU2R')

✓ RUR'URU'R'URU2R'	🎓 ☆
✓ yRU2R'U'RUR'U'RUR'	🎓 ☆
✓ yFRUR'U'RUR'U'RUR'U'F'	🎓 ☆
✓ R'U'RUR'URU'R'U2R	🎓 ☆
✓ yFURU'R'URU'R'URU'R'F'	🎓 ☆
✓ yR'U2RUR'U'RUR'UR	🎓 ☆
✓ y'FRUR'U'RUR'U'RUR'U'F'	🎓 ☆
✓ yFRUR'U'RUR'U'RUR'U'F'y'	🎓 ☆
✓ LUL'ULU'L'ULU2L'	🎓 ☆
✓ RUR'URU'r'FR'F'r	🎓 ☆



✓ y f U R U' R' U R U' R' U R U' R' f'	🎓 ☆
✓ y f R U R' U' R U R' U' R U R' U' f'	🎓 ☆
✓ U F R U R' U' R U R' U' R U R' U' F'	🎓 ☆
✓ y R' F2 R2 U2 R' F2 R U2 R2 F2 R	🎓 ☆
✓ F R U' R' U R U2 R' U' R U R' U' F'	🎓 ☆
✓ R2 U' L2 F2 L' F2 L D' F2 D' L D2 L U R2	🎓 ☆
✓ U F R U R' U' R U R' U' R U R' U' F' U'	🎓 ☆
✓ y R' U' R U' R' U2 R F' r U R' U' r' F R	🎓 ☆
✓ L' U' L U' L' U L U' L' U2 L	🎓 ☆
✓ R U R' U R U2 U R' U R U2 R'	🎓 ☆
✓ L' U R U' L U R' U' R U2 R' U' R U' R'	🎓 ☆
✓ R B U B' U' B U B' U' B U B' U' R'	🎓 ☆
✓ y L' U2 L U L' U' L U L' U L	🎓 ☆
✓ U R U2 R' U' R U R' U' R U' R'	🎓 ☆
✓ U R U2 R' U' R U R' U2 R' F R2 U' R' U' R U R' F' U2	🎓 ☆
✓ U' f R U R' U' R U R' U' R U R' U' f'	🎓 ☆

✓ R U R' U R U L' U R' U' L	 
✓ f R U R' U' R F' R U R' U' R' S'	 
✓ R' F' R U2 R U2 R' F U' R U' R'	 



OLL 22



3x3 - OLL - OCLL

setup:

R' U2' R2' U R2' U R2' U2' R'

Standard Alg:

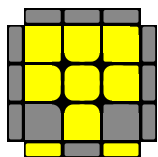
R U2 (R2' U') (R2 U') (R2' U') U' R

✓ R U2 R2 U' R2 U' R2 U2 R	
✓ R' U2 R2 U R2 U R2 U2 R'	
✓ f R U R' U' S' R U R' U' F'	
✓ f R U R' U' f' F R U R' U' F'	
✓ y2 r' F2 r2 B r2 F r2 B2 r'	
✓ y2 L' U2 L2 U L2 U L2 U2 L'	
✓ R U R' U' R' U2 R U R' U R2 U2 R'	
✓ y2 L U2 L2 U' L2 U' L2 U2 L	
✓ y' R U R' U F' R U2 R' U2 R' F R	
✓ y' R' U' R U' R' U2 R2 U2 R' U' R U' R'	
✓ R' U' R U' R' U2 R U R' U' R U' R' U2 R	
✓ F S R U R' U' S' R U R' U' F'	



✓ y2FRUR'U'RUR'U'SRUR'U'RUR'U'f'	🎓 ☆
✓ y2FRUR'U'RUR'U'SRUR'U'RUR'U'f'	🎓 ☆
✓ RU'zU'RD'RURU'RUz'	🎓 ☆
✓ FRUR'U'RUR'U'F'RUR'U'M'URU'r'	🎓 ☆
✓ yRUR'URU2R2U2RUR'UR	🎓 ☆
✓ yFR2U'R2UR2USR2f'	🎓 ☆
✓ yFURU'R'URU2R'U'RUR'F'	🎓 ☆
✓ yFURU'R'URU'R2F'RURU'R'	🎓 ☆
✓ RUD'RUR'DR2U'R'U'R2U2R	🎓 ☆
✓ y'R'U'RUR'R'U2RU'R'U'RUR'R'U2R	🎓 ☆
✓ RU2R'U'RUR'R'U'RU2R'U'RUR'	🎓 ☆
✓ R'F'U'FU'RUS'R'URS	🎓 ☆
✓ y2FURU'R'F'U2FRUR'U'F'	🎓 ☆
✓ RUR'U'R'FR2UR'U'RUR'U'F'	🎓 ☆
✓ R2D'RUR'DRURU'R'URUR'UR	🎓 ☆
✓ RUR'URU2R'U'RUR'URU2R'	🎓 ☆

✓ yRUR'U'L'U'L'ULU'RUR'UL'UL	🎓 ☆
✓ U'FURU2R'URUR'F'R U2R'U'RUR'	🎓 ☆
✓ R'U'F'RUR'U'R'FR2U2R'U2R	🎓 ☆
✓ yx'RUR'DRU'R'D'RU'R'DRUR'D'x	🎓 ☆
✓ R'U2RUR'URUR'U2RUR'URU	🎓 ☆
✓ y2FURU'R'SURU'R'f'	🎓 ☆
✓ y2LU'R'UL'URUR'UR	🎓 ☆
✓ y2L'URU'LU'R'U'RUR'	🎓 ☆
✓ y'R U2R'UR'D'R U2R'DR2U'R'	🎓 ☆
✓ y2r'FRF'rU'R'U'RUR'	🎓 ☆



OLL 23



3x3 - OLL - OCLL

setup:

R U2' R D R' U2' R D' R2'

Standard Alg:

R2 D (R' U2 R) D' (R' U2 R')

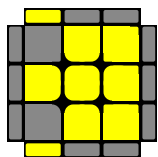
✓ R2 D R' U2 R D' R' U2 R'	
✓ y2 R2 D' R U2 R' D R U2 R	
✓ R U R' U R U2 R2 U' R U' R' U2 R	
✓ y' R U2 R' U' R U' R' L' U2 L U L' U L	
✓ y' R U2 R' U' R U' R' L' U2 L U L' U L	
✓ y R U R' U' R U' R' U2 R U' R' U2 R U R'	
✓ R2 D R' U2 R D' R' U2 D D' R'	
✓ L2 D' L U2 L' D L U2 L	
✓ R U R' U R U2 R' y R U2 R' U' R U' R' U	
✓ y2 R' U2 R F U' R' U' R U F'	
✓ y2 R' U2 R U2 R' F' R U R' U' R' F R2	
✓ R U' L U' R' U L' U2 R U' R'	



✓ U2 R2 D' R U2 R' D R U2 R	🎓 ☆
✓ y F U2 F' R' U F U F' U' R	🎓 ☆
✓ U2 R2 D' R U R' D R U R U' R' U' R	🎓 ☆
✓ U r U R' U' r' F R F' R' F' L' F R F' L F	🎓 ☆
✓ R' D R D' R' D R U' R' D' R D R' D' R U	🎓 ☆
✓ y2 R' F R2 U' r' F R' F' r U R' F' R	🎓 ☆
✓ y2 L2 D L' U2 L D' L' U2 L'	🎓 ☆
✓ y2 R' U' R U' R' U2 R2 U R' U R U2 R'	🎓 ☆
✓ R U2 R' U L' U2 R U' R' U2 L	🎓 ☆
✓ R' D R D' R' D R U' R' D' R D R' D' R	🎓 ☆
✓ U R' U' R U2 R D R' U2 R D' R2 U R	🎓 ☆
✓ U R U R' U2 R' D' R U2 R' D R2 U' R'	🎓 ☆
✓ y2 F R U' R' U R U R' U R U' R' F'	🎓 ☆
✓ y R U R' U' R U R' U' L' U R U' R' U R U' R' L	🎓 ☆
✓ U2 R' U' R U' R' U2 R2 U R' U R U2 R'	🎓 ☆
✓ R' F2 R U2 R U2 R' F2 R U2 R'	🎓 ☆

✓ y2R'FR'FR2U'R'U'RUR'F'RUR'U'F'R	🎓 ☆
✓ x'RUR'U'RUR'DRU'R'URU'R'D'x	🎓 ☆
✓ y'R2D'RUR'DR2U'R'U2R	🎓 ☆
✓ y2R'FRU'R'U'RUR'F'RUR'U'R'FRF'R	🎓 ☆
✓ RU'L'UR'U'LU2L'URU'LUR'	🎓 ☆
✓ RU2xRU2RU2R'U2LU2r'U2RU2R'U2R'	🎓 ☆
✓ y2zUR2U'F'RURU'R'Fz'	🎓 ☆
✓ y'RU2R'U'RUR'U'RUR'URU2R'	🎓 ☆
✓ RU2xRU2RU2r'U2LU2R'U2RU2R'U2R'	🎓 ☆
✓ U2R'FRU'R'U'RUR'F'RUR'U'R'FRF'R	🎓 ☆
✓ R'U2LF2L'F2R2U2RU2R'U2F2R2F2	🎓 ☆
✓ U'RU2R'U'RUR'U'RUR'URU2R'	🎓 ☆
✓ y2RUR'U'R'F2R2U'R'U'RUR'F2	🎓 ☆
✓ x2R2UR'D2RU'R'D2R'x2	🎓 ☆
✓ RUR'URU2R'U2L'U'LU'L'U2L	🎓 ☆
✓ RUR'URU2R'URU2R'U'RUR'	🎓 ☆

✓ U' R' U' R U' R' U2 R U' R' U2 R' D' R U2 R' D R2 U	🎓 ☆
✓ R2 D R' U2 R D' R' U R U R U R U' R' U' R2 U2	🎓 ☆
✓ U' R U2 R' U' R U' R' U2 R' U2 R U R' U R	🎓 ☆
✓ U' R' U R' D' U' R U' R' U2 R U' R' D R U' R U'	🎓 ☆
✓ R U R' U R U2 R' y R U2 R' U' R U' R'	🎓 ☆
✓ y2 r U' r2 F R F' r U R' U' r U r'	🎓 ☆
✓ y2 x' R U' R' D R U2 R' D' R U' R'	🎓 ☆
✓ y F2 R U' R' U' R U R' F' R U R' U' R' F R F2	🎓 ☆
✓ R2 B2 U2 L U2 R' U2 R U2 F2 R F2 L' B2 R2	🎓 ☆
✓ y2 R' U2 R F' R' F U2 F' R F	🎓 ☆
✓ x R2 F R' B2 R F' R' B2 R'	🎓 ☆
✓ L' U' L U' L' U2 L2 U L' U L U2 L'	🎓 ☆
✓ y F R U R' U' R U R' U' F2 L' U' L U F	🎓 ☆



OLL 24



3x3 - OLL - OCLL

setup:

$F R' F' r U R U' r'$

Standard Alg:

$(r U R' U') (r' F R F')$

✓ $r U R' U' r' F R F'$	
✓ $y' x' R U R' D R U' R' D' x$	
✓ $y R U R D R' U' R D' R^2$	
✓ $L F R' F' L' F R F'$	
✓ $y^2 R' F' r U R U' r' F$	
✓ $y' R' U' R' D' R U R' D R^2$	
✓ $x L U R' U' L' U R U'$	
✓ $y R' F' R U R' U' R' F R U R$	
✓ $y^2 l' U' L U R U' r' F$	
✓ $r U R' U' L' U R U'$	
✓ $y' R' U^2 R U R' U R^2 U^2 R' U' R U' R'$	
✓ $x U R U' L U R' U' L' x'$	



✓ U'x'RUR'DRU'R'D'x	🎓 ☆
✓ FRF'rUR'U'r'	🎓 ☆
✓ UR'FRUR'U'R'FRUR	🎓 ☆
✓ y2l'U'LUlF'L'F	🎓 ☆
✓ U'FR'D'RUR'DRU'F'	🎓 ☆
✓ rU'r'U2rUr'y'R'F'U2FR	🎓 ☆
✓ rU'r'U2rUr'yL'B'U2BL	🎓 ☆
✓ y2R'F'LFRF'L'F	🎓 ☆
✓ yR'UR2UR'UR'U'RUR'U'RURUR'	🎓 ☆
✓ yl'U'RD'R'URDx	🎓 ☆
✓ r'U'RULU'R'Ux	🎓 ☆
✓ yxDLU'L'D'LUL'	🎓 ☆
✓ RUR'URU2R'L'U'LU'L'U2L	🎓 ☆
✓ U2R'F'rURU'r'F	🎓 ☆
✓ UR'U2RUR2FRURU'R'F'R	🎓 ☆
✓ yR'U2RUR2FRURU'R'F'R	🎓 ☆

✓ y2xR'U'LRU'L'Ux'	🎓 ☆
✓ y'r'U'LD'L'ULDx	🎓 ☆
✓ y2L'U'LRU'L'ULR'	🎓 ☆
✓ y'x'DRU'R'D'RUR'x	🎓 ☆
✓ y'x'DRU'R'D'RUR'	🎓 ☆
✓ yRU2R'U'RUR'URUR'URU2R'	🎓 ☆
✓ y2l'U'LRU'L'x'F	🎓 ☆
✓ y2l'U'LRU'L'Ux'	🎓 ☆
✓ yxR'U'RD'R'URDx'	🎓 ☆
✓ yl'U'RD'R'URDx'	🎓 ☆
✓ yB'R'FRBR'F'R	🎓 ☆
✓ URURDR'U'RD'R2	🎓 ☆
✓ U2R'F'LFRF'L'F	🎓 ☆
✓ U'R'U'R'D'RUR'DR2	🎓 ☆
✓ yF'URU'L'UR'U'LF	🎓 ☆
✓ y'RUR'U2RUR'U2RUR'URU'R'	🎓 ☆

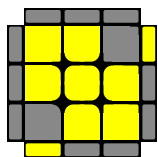
✓ xLUR'U'L'URU'x'	🎓 ☆
✓ rUR'U'r'FRF'U	🎓 ☆
✓ UFRU'R'U'RU2R'U'F'R'U'R'U'R'U2RU	🎓 ☆
✓ UR'UD'R'U2R'DR'U'R'U2R'U'R2	🎓 ☆
✓ U2RU'R2D'r'U2r'DR2U'R'U'R'U'R'	🎓 ☆
✓ R'U'R'U'R'U2RU2RUR'URU2R'	🎓 ☆
✓ y'L'ULU2R'L'ULU'R	🎓 ☆
✓ y2x'RUL'U'R'ULU'	🎓 ☆
✓ rUR'U'L'UIF'	🎓 ☆
✓ x'LDR'D'L'DRD'x	🎓 ☆
✓ RUR'U'L'URU'R'L	🎓 ☆
✓ y2LUL'ULU2L'R'U'R'U'R'U2R	🎓 ☆
✓ y2FURU2R'URUR'F'	🎓 ☆
✓ y'FRB'R'F'RBR'	🎓 ☆
✓ R'U'RFR'URU'F'	🎓 ☆
✓ rUR'U'zU'Rz'RU'	🎓 ☆

✓ r'U'RURf'U'f



✓ y'FRUR'U'RUR'R'U'RUR'F'





OLL 25



3x3 - OLL - OCLL

setup:

R' F' r U R U' r' F y'

Standard Alg:

y (F' r U R') (U' r' F R)

✓ R U2 R D R' U2 R D' R2	
✓ y F' r U R' U' r' F R	
✓ F R' F' r U R U' r'	
✓ x R' U R D' R' U' R D x'	
✓ R' F R B' R' F' R B	
✓ y R2 D R' U R D' R' U' R'	
✓ y2 R2 D' R U' R' D R U R	
✓ y2 R U2 R' U' R U R' U' R U R' U' R U' R'	
✓ y' x' R U' R' D R U R' D' x	
✓ y' R U R' U' R' F R U R U' R' F'	
✓ L' R U R' U' L U R U' R'	
✓ y2 l' U' L' U R U' L U x'	



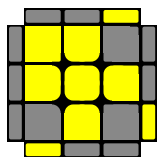
✓ y2FRU'R'U'R U2R'U'F'	🎓 ☆
✓ y2R'F'L'FRF'LF	🎓 ☆
✓ MFR'F'rURU'R'	🎓 ☆
✓ y'R'F'RUR'U'R'FR2U'R'U2R	🎓 ☆
✓ rU2R2FRF'R U2r'	🎓 ☆
✓ LUL'ULU'L'ULU'L'ULU2L'	🎓 ☆
✓ y'xLURU'L'UR'U'	🎓 ☆
✓ xUR'U'LURU'L'x'	🎓 ☆
✓ U'RUR'U'R'FRURU'R'F'	🎓 ☆
✓ y2xURDR'U'RD'R'	🎓 ☆
✓ y2R'U'RUR'F'RUR'U'R'FR2	🎓 ☆
✓ L'U'LU'BU'L'U'LUB'	🎓 ☆
✓ UF'rUR'U'r'FR	🎓 ☆
✓ y2RUR'URU'R'URU'R'URU2R'	🎓 ☆
✓ y2R'F'RUR'U'R'FRU'RUR'UR	🎓 ☆
✓ y'LFRR'F'L'FR'F'	🎓 ☆

✓ F l' U' L U R U' r'	🎓 ☆
✓ y L' U2 L' D' L U2 L' D L2	🎓 ☆
✓ U R U2 R2 D' R U' R' D R2 U' R'	🎓 ☆
✓ y' R' U2 R' D' R U2 R' D R2	🎓 ☆
✓ x U R' U' L U R U' r'	🎓 ☆
✓ l' U R D' R' U' R D	🎓 ☆
✓ L' B' R' B L B' R B	🎓 ☆
✓ x' L' U' R' U L U' R U x	🎓 ☆
✓ R U R D R' U R D' R' U2 R'	🎓 ☆
✓ R L' U R' U' L U R U' R'	🎓 ☆
✓ y2 F R' F' R U R U' R' F R U R' U' F'	🎓 ☆
✓ R U R' U R U2 R' U2 R U2 R' U' R U' R'	🎓 ☆
✓ x R' U R D' R' U' R D	🎓 ☆
✓ y r2 U r' U' r' F r2 U' r' U' r U r' F' U r'	🎓 ☆
✓ U B' R' F' R B R' F R	🎓 ☆
✓ U2 R' U' F U F' R F U' F'	🎓 ☆

✓ yF'LFi'U'L'Ul	🎓 ☆
✓ l'URD'R'U'RDx'	🎓 ☆
✓ y2FRBR'F'lU'l'	🎓 ☆
✓ y2rU2R'U'RUR'U'RUR'U'RU'r'	🎓 ☆
✓ yF'rUR'U'L'UR	🎓 ☆
✓ UR2DR'URD'R'U'R'	🎓 ☆
✓ RU2R'U'RU'R'U2RUR'URU2R'	🎓 ☆
✓ U2R2D'R'U'R'DRUR	🎓 ☆
✓ y2x'DRUR'D'RUR'	🎓 ☆
✓ U'x'RUR'DRUR'D'x	🎓 ☆
✓ UFRUR'U'R'F'U'RURU'R'U'R'UR	🎓 ☆
✓ RURDR'U2RD'R'U'R'URUR'U	🎓 ☆
✓ R2U'RURU'RD'URU'R'DU'	🎓 ☆
✓ U'R'U2R'D'R'U2R'DR2	🎓 ☆
✓ R2D'R'U2R'DR'U2R2U2R'U'R'U'R'U	🎓 ☆
✓ RU2RD'r'U2rD'R2U2	🎓 ☆

✓ y2L'BLF'L'B'LF	🎓 ☆
✓ x'R'DRU'R'D'RU	🎓 ☆
✓ y'R2F'RURU'R'FRU'R'UR	🎓 ☆
✓ y2R'FRUR'U'RUR'U'F'URfRf'	🎓 ☆
✓ y'R'FR2U'R'U'RUR'F'RU'R'URUR'	🎓 ☆
✓ y'rURU'r'FR'F'	🎓 ☆
✓ yx'RULU'R'UL'U'	🎓 ☆
✓ U2R'F'L'FRF'LF	🎓 ☆
✓ FR'F'LFRF'L'	🎓 ☆
✓ yF'LFR'F'L'FR	🎓 ☆
✓ y'rURU'L'UR'U'	🎓 ☆
✓ yR'U'RUR'URU'R'URU'R'U2R	🎓 ☆
✓ yB'RUR'U'R'FR2U'R'U'RUR'F'B	🎓 ☆
✓ y'lU'R'DRUR'D'x	🎓 ☆
✓ y'R'U'R'D'RU'R'DRU2R	🎓 ☆
✓ y2FRBR'F'RB'R'	🎓 ☆

<div> <div> </div> <div> y2FUR'U'RF'R'UR </div> </div>	<div> <div> </div> <div> </div> </div>
<div> <div> </div> <div> R'FRUR'U'R'F'RUR </div> </div>	<div> <div> </div> <div> </div> </div>



OLL 26



3x3 - OLL - OCLL

setup:







$RUR'URU2'R'y'$

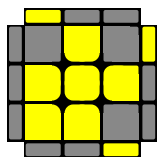
Standard Alg:

$yRU2(R'U'R U')R'$

✓ $yRU2R'U'RUR'$	
✓ $R'U'RUR'U2R$	
✓ $y2L'U'LU'L'U2L$	
✓ $y2L'URU'LU'R'$	
✓ $y'LU2L'U'LU'L'$	
✓ $URU2R'U'RUR'$	
✓ $yRU2D2R'U'RUR'U2RD2R'U$	
✓ $y2U'RUR'U'RUR'$	
✓ $R'ULU'RUL'$	
✓ $BU2B'U'BU'B'$	
✓ $y'M'U'r'FRF'rUr'$	
✓ $U2L'URU'LU'R'$	



✓ U2 L' U' L U' L' U2 L	 
✓ y2 r' F' r U' r' F2 r	 
✓ y2 L' U' L U' L' U2 L y2	 



OLL 27



3x3 - OLL - OCLL

setup:

R U2' R' U' R U' R'

Standard Alg:

(R U R' U) (R U2 R')

✓ R U R' U R U2 R'	
✓ y' R' U2 R U R' U R	
✓ y L' U2 L U L' U L	
✓ y2 L U L' U L U2 L'	
✓ y F U F' U F U2 F'	
✓ R U' L' U R' U' L	
✓ y' U R U' L' U R' U' L	
✓ y' R U' R' U' R U' R' U' R U' R' U' R U' R'	
✓ U L' U2 L U L' U L	
✓ R U' r' F R' F' r	
✓ r U' r' F R' F' r U M	
✓ U' R' U2 R U R' U R	



✓ y r' F2 r U L' U L

