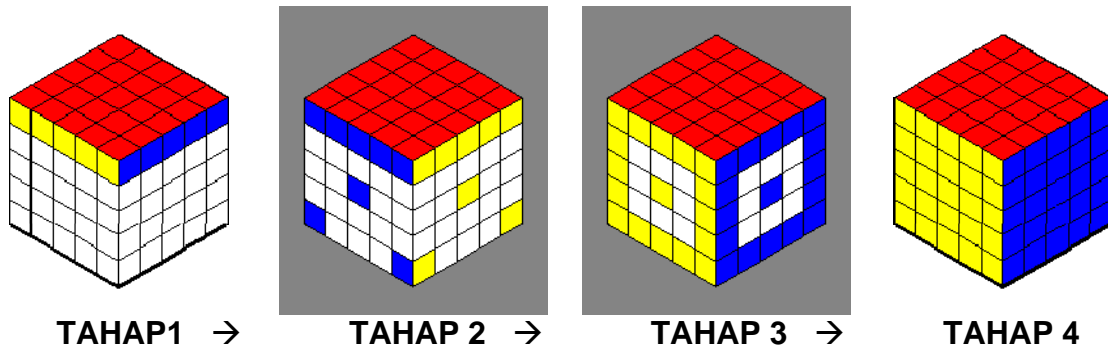


## SOLUSI KUBUS RUBIK 2X2, 3X3, 4X4& 5X5 (4 in 1) :

Semua Rumus-Rumus yang dipakai disini bersifat umum, artinya bisa diterapkan untuk kubus rubik 2x2, 3x3, 4x4 maupun 5x5.

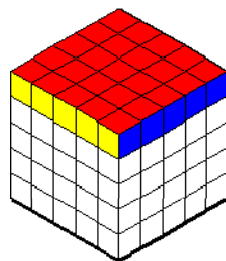


### PEMBAHASAN:

#### **TAHAP 1: MENYELESAIKAN BIDANG ATAS**

-Tidak dibahas disini, karena kami menganggap anda sudah bisa.  
(tidak terlalu sulit)

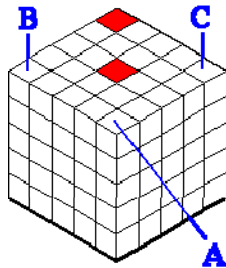
-Selesai tahap 1, kubus tampak seperti ini:



**TAHAP 2: MENYELESAIKAN KEEMPAT BIJI POJOK BIDANG BAWAH**

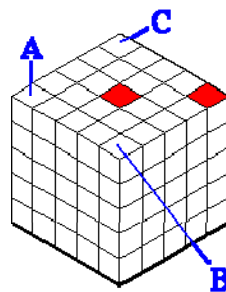
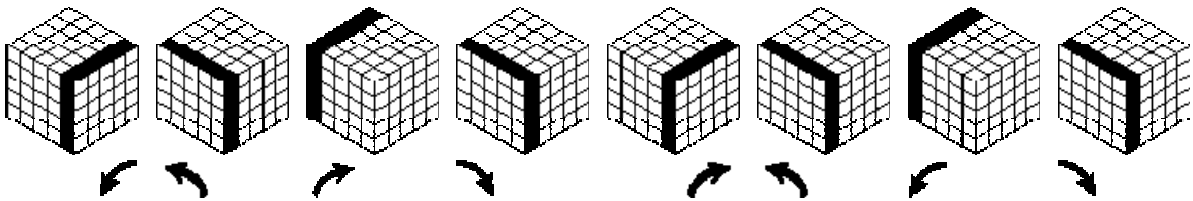
-Ada 2 step yaitu:

-Step 1: positioning corner pieces



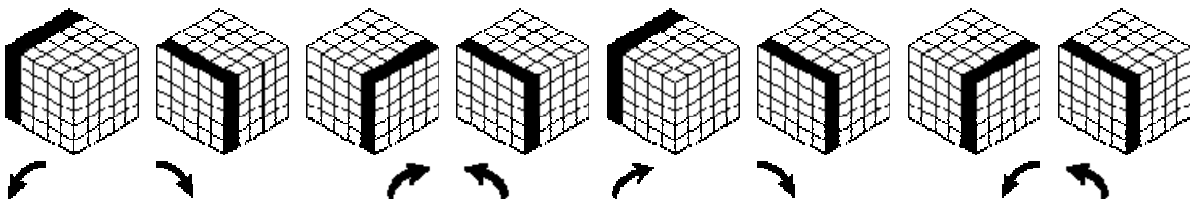
RUMUS 1A:

A ke B, B ke C, C ke A

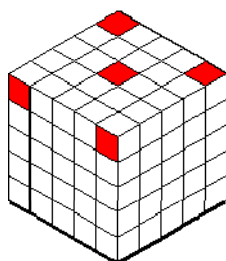


RUMUS 1B:

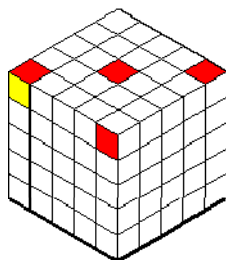
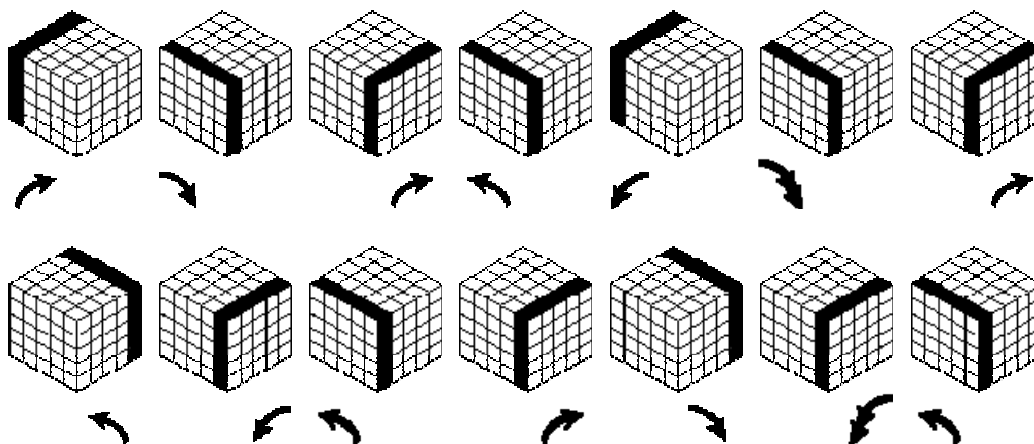
A ke B, B ke C, C ke A



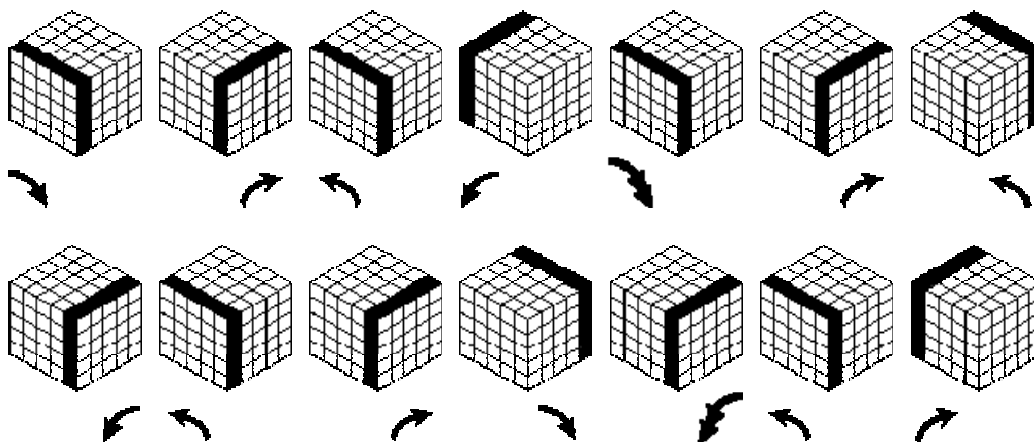
-Step 2: orienting corner pieces



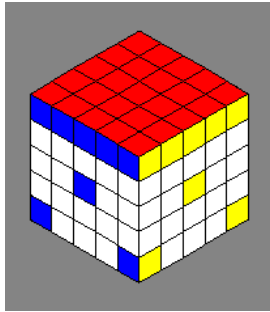
RUMUS 2:



RUMUS 3:

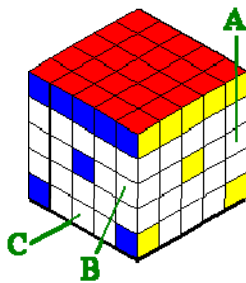


-Selesai tahap 2, kubus tampak seperti ini:



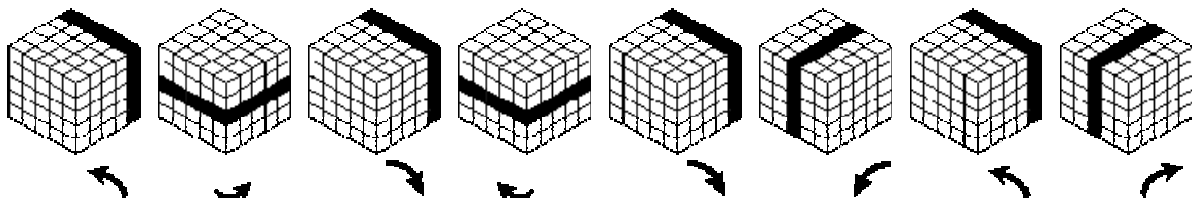
(Untuk kubus rubik 2x2, selesai)

**TAHAP 3: MENYELESAIKAN BIJI TEPI**



RUMUS 4:

A ke B, B ke C, C ke A



Pada akhir dari penerapan Rumus 4 ini, sering terjadi kasus.

Kasus: Bila B & C sudah pada posisi yang tepat namun warnanya terbalik, pakai:

$$\text{Rumus 4} + R'' + \text{Rumus 4} + R'' \quad (a)$$

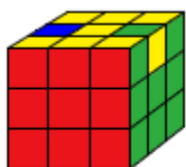
Kasus: Bila A & C sudah pada posisi yang tepat namun warnanya terbalik, pakai:

$$R'' + \text{Rumus 4} + R'' + \text{Rumus 4} \quad (b)$$

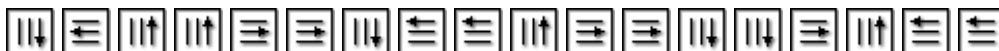
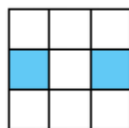
Kasus: Bila A & B sudah pada posisi yang tepat namun warnanya terbalik, pakai:

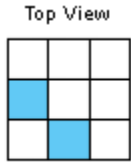
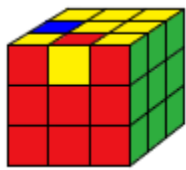
$$\text{Rumus 4} + R'' + \text{Rumus 4} (2x) + R'' + \text{Rumus 4} \quad (a+b)$$

Alternatif:

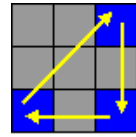
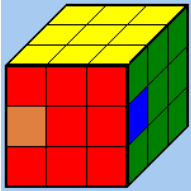


Top View





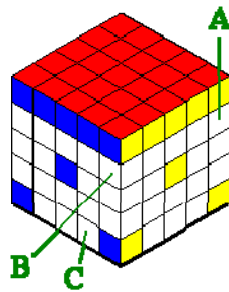
Rumus Permutasi untuk lapisan tengah:



tampak atas dari lapisan tengah

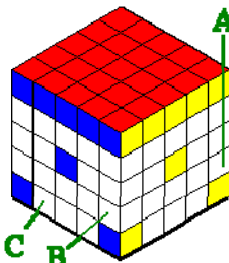
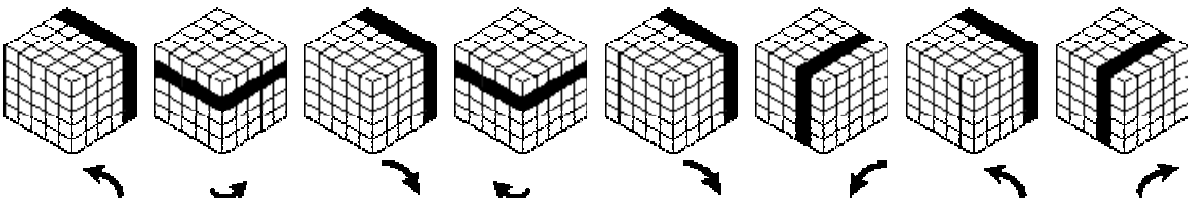


(Untuk kubus rubik 3x3, selesai)



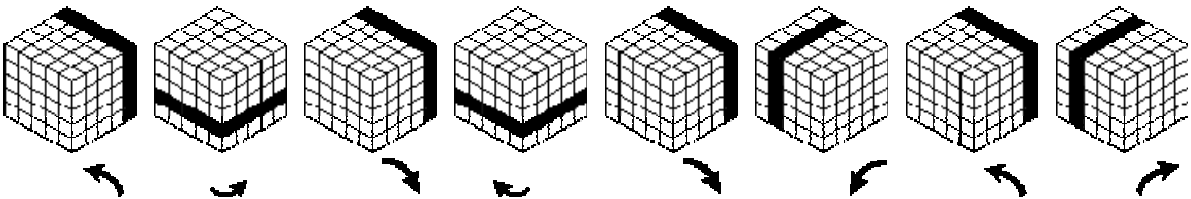
RUMUS 5:

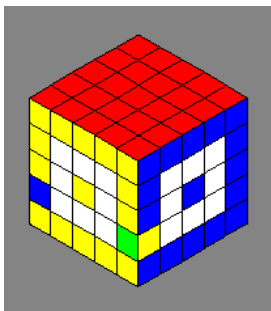
A ke B, B ke C, C ke A



RUMUS 6:

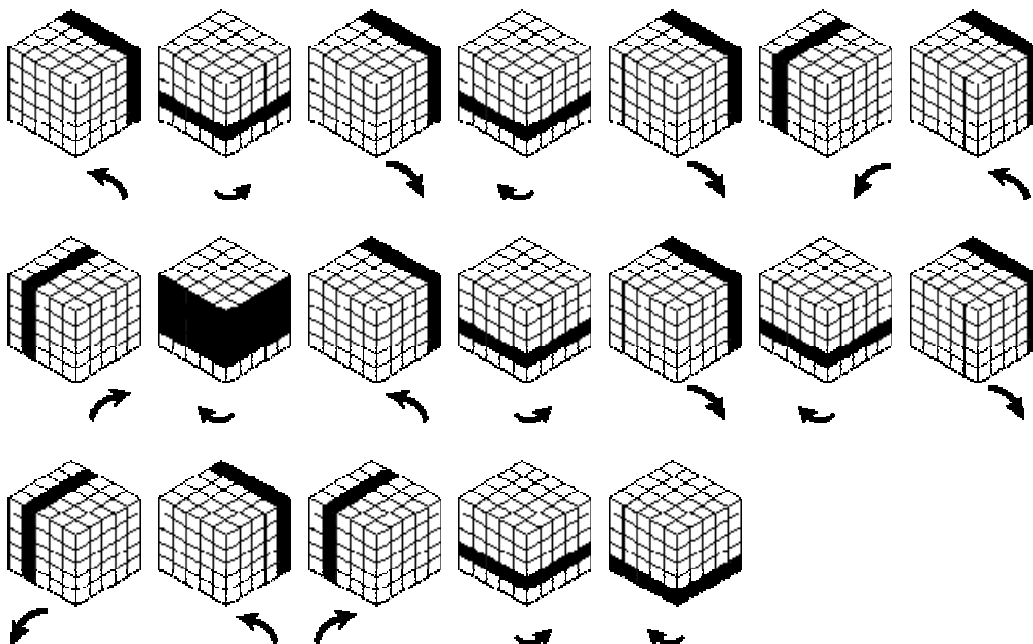
A ke B, B ke C, C ke A



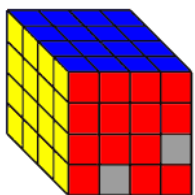


RUMUS 7:

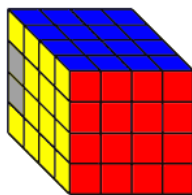
TUKAR TEMPAT



Rumus-rumus pelengkap/ penunjang yang dapat dipergunakan bila terjadi kasus.



Tukar tempat



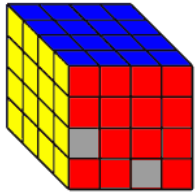
Tukar tempat sambil orientasi

Special Move 1A:

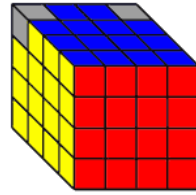
$R U' 1' U^2 1' U^2 1' U^2 1' U^2$   
 $1' U R' U 1 U' R U$   
 $1 U' R' U 1^2 U'$

Special Move 3:

$L^2 dR^2 dR^2 d'L^2$   
 $u'B^2 u^2 B^2 u'B^2$   
 $R^2 Br'B' R^2 BrB$



Tukar tempat



Tukar tempat sambil orientasi

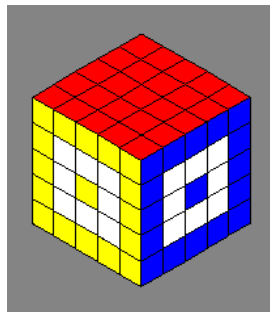
**Special Move 1B:**

L'U rU2 rU2 rU2 rU2  
 r U' L U' r' U L' U'  
 r'U L U' r2 U

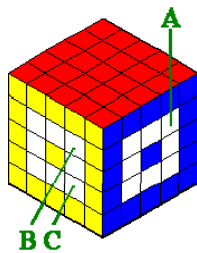
**Special Move 2:**

R'F'UFR BU2F'UB'U'  
 FfD'fDf'D'f' U2fDfD'f'Df2  
 rfr'U2rf'r'f F'U'F2  
 DRUR'D'U' F2U2FU

-Selesai tahap 3, kubus tampak seperti ini:

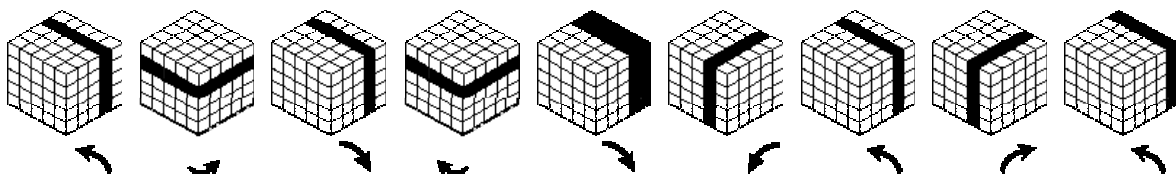


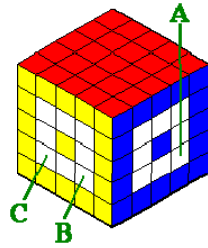
**TAHAP 4: MENYELESAIKAN BIJI CENTER**



RUMUS 8:

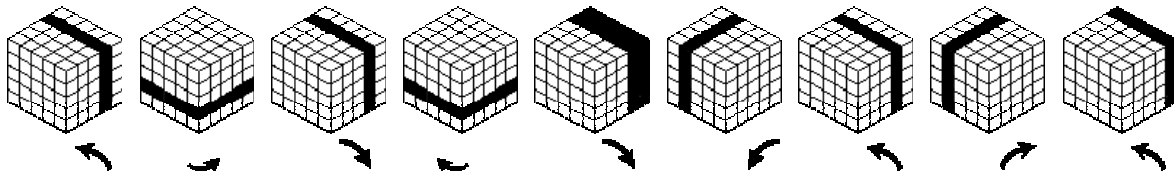
A ke B, B ke C, C ke A



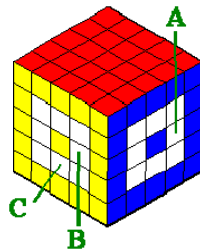


RUMUS 9:

A ke B, B ke C, C ke A

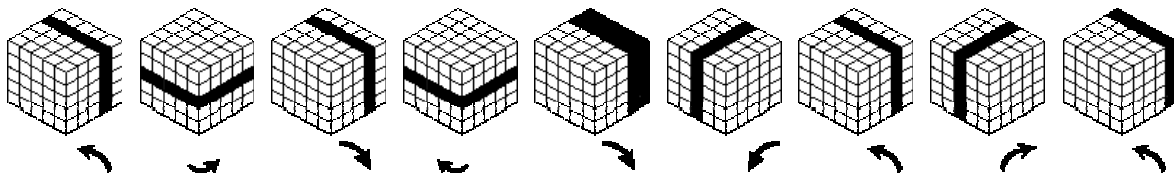


(Untuk kubus rubik 4x4, selesai)

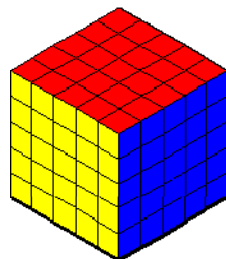


RUMUS 10:

A ke B, B ke C, C ke A



-Selesai tahap 4, kubus tampak seperti ini:



**SELESAI**

Disusun oleh: Teguh Lestari  
 Untuk : TL PUZZLE  
 Pada : OKT. 2008