

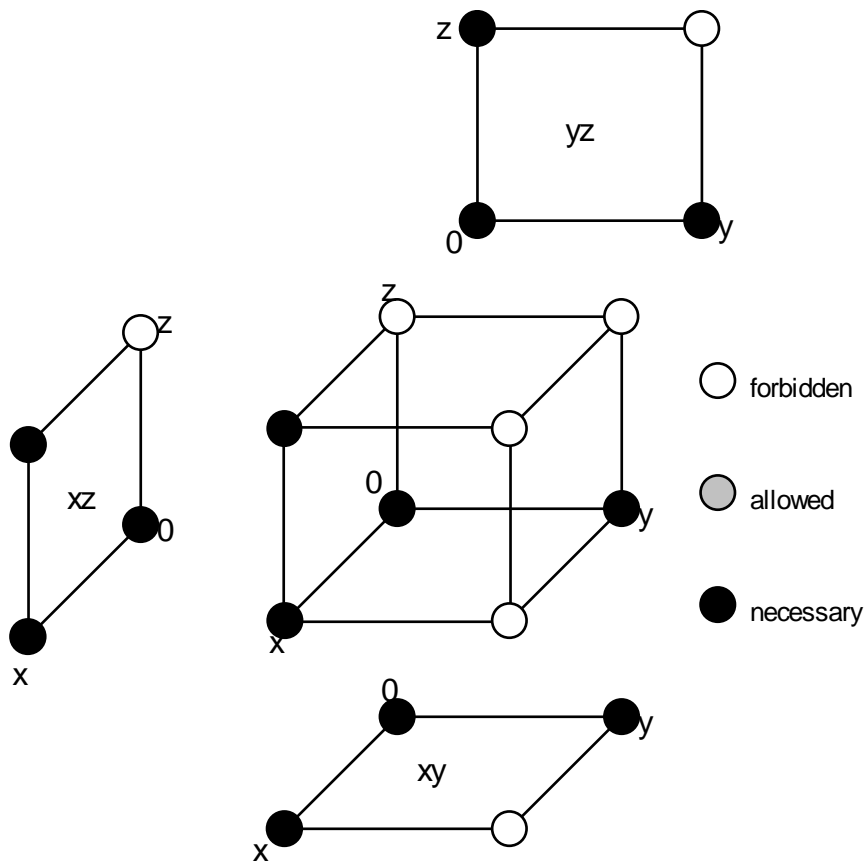
**Example 2: no error in going down to XY:YZ:XZ****XYZ****000****100****010****101****XY•****00•****01•****10•****•YZ****•00****•01****•10****X•Z****0•0****1•0****1•1**

=====

11•    •11    0•1    FORBIDDEN  
 a       b       c

**Full Cartesian product (exclusion)****000**~~001~~ c**010**~~011~~ b, c**100****101**~~110~~ a~~111~~ a, b

$$T(\text{XY:YZ:XZ}) = H(\text{XY:YZ:XZ}) - H(\text{XYZ}) = 0$$



**Example 3: Error in going down to XY:YZ:XZ****XYZ****001****100****010****101****XY•****00•****01•****10•**

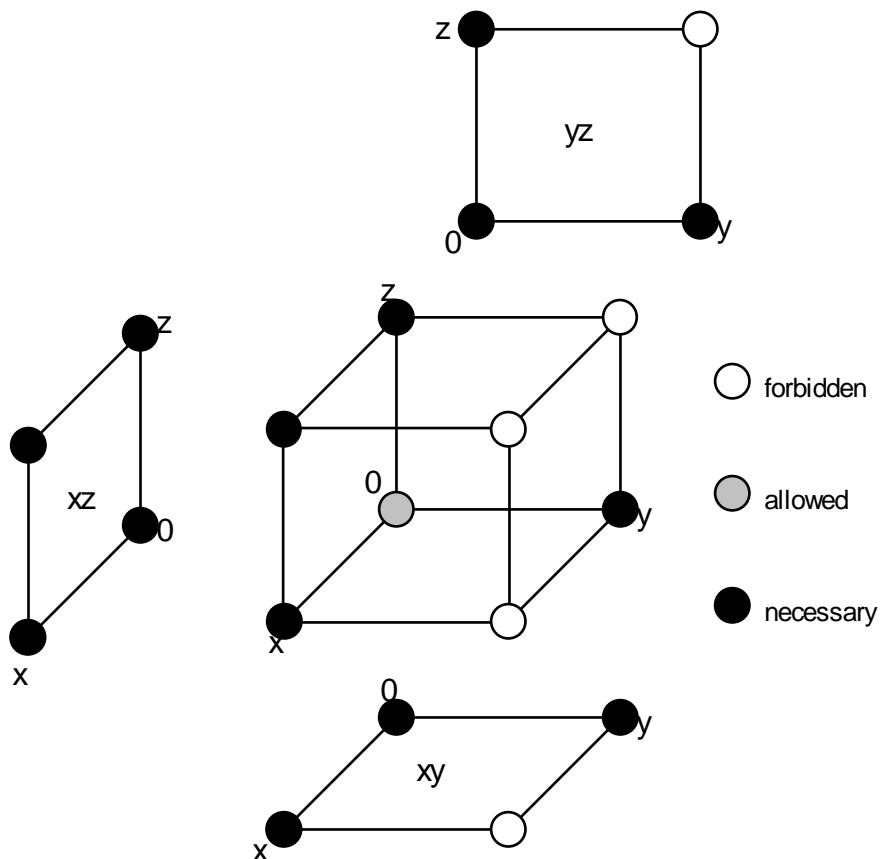
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**11•****a****•YZ****•00****•01****•10**

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**•11****b****X•Z****0•0****0•1****1•0****1•1****FORBIDDEN****Full Cartesian product (exclusion)****000****001****010****011-b****100****101****110-a****111-a, b**

$$T(\text{XY:YZ:XZ}) = H(\text{XY:YZ:XZ}) - H(\text{XYZ}) = \log_2(5) - \log_2(4) = \log_2(5/4)$$



**Example 4 Borromean ring: maximal error in going down to  $XY:YZ:XZ$** 

<u>XYZ</u>	<u>XY•</u>	<u>•YZ</u>	<u>X•Z</u>
000	00•	•00	0•0
011	01•	•11	0•1
101	10•	•01	1•1
110	11•	•10	1•0

$$T(XY:YZ:XZ) = H(XY:YZ:XZ) - H(XYZ) = \log_2(8) - \log_2(4) = \log_2(8/4) = 1$$

**Example 5 Identification, not reconstruction & INCONSISTENCY!!**

<u>XYZ</u>	<u>XY•</u>	<u>•YZ</u>	<u>X•Z</u>
01•	•00	0•0	
10•	•01	0•1	
	•11	1•1	
==	==	==	
00•	•10	1•0	FORBIDDEN
11•			

