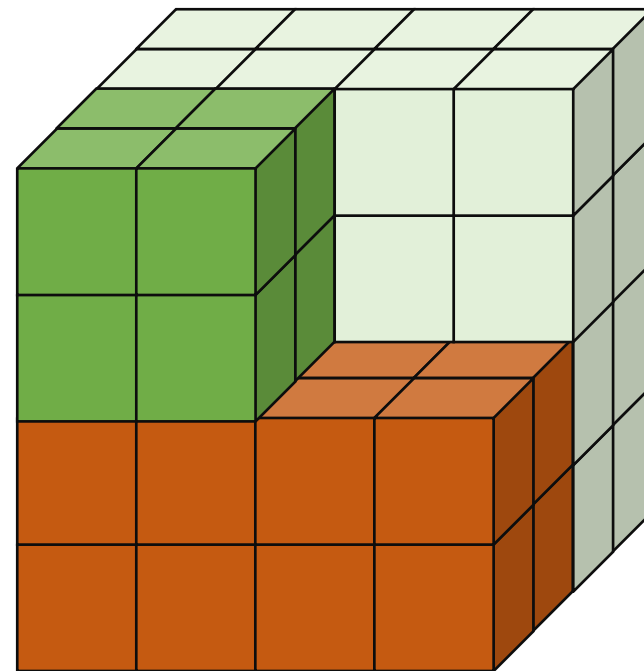


1






2

To begin, **active boxes** = first (blue) box 

Suppose yellow box intersects with blue box at the orange area

1. Identify intersection box (orange) 

2. Cut the blue box by 6 sides of the intersection box

=> Blue box is divided into max. 6 cubes depending on position of the intersection. In this case blue box is cut into 3 boxes:   

3. After intersecting & cutting, blue box is gone.

- If yellow box is ON: **active boxes** =    

- If yellow box is OFF: **active boxes** =   

4. When a new box comes, compare new box with **active boxes**