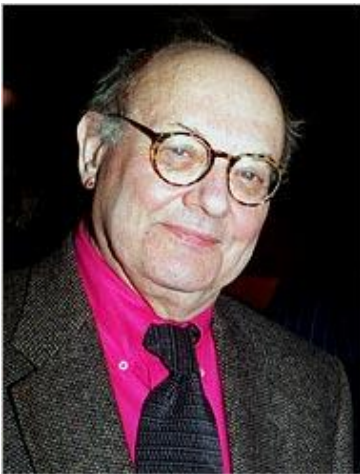


Incomplete Cubes

Suppose you take a cube with 12 edges and remove all but four edges. How many DIFFERENT incomplete cubes can you make that would still stand on its own?

For example, below is one sculpture by an artist named Sol Lewitt who asked that very question.



[Sol LeWitt Art, Bio, Ideas | TheArtStory](#)



There are five such incomplete cubes. Can you draw them? Note: they have to be different from each other even if you turn them around.

What about removing all but five edges?

Although Sol Lewitt is an artist, not a mathematician, he did a thorough study of incomplete cubes. See [Sol LeWitt | Incomplete Open Cubes | The Metropolitan Museum of Art \(metmuseum.org\)](#).