Appendix 6.4

Mysterious Ruins¹

At an archaeological site, a dig team has unearthed the ruins of a very ancient monument. In order for archaeologists to reconstruct it, one of the diggers traced the views of each of the four sides (east, west, north, and south).

Archaeologists want to make a model of the ruins of this monument with cubes based on the four views that the digger has drawn. They realize that there are several possible cube dispositions that respect the views.

Can you, using interlocking cubes, build a model of any of these layouts?

Can you build one that uses as few cubes as possible?

^{1.} Mathematics in the City Summer Institute, 2005, City College of New York: <u>www.mitcccny.org</u>.