

Practice Problem 4

Deadline: October 15, 2018

Given any five points on a sphere, show that some four of them must lie on a closed hemisphere.

Solution by Jashandeep Brar and Alexander Sills:

If you take two points on a sphere you can build an equator containing those two points. This gives you two closed hemispheres (; i.e., two hemispheres with their boundaries.) Then put two points on the opposite sides of the equator. The 5th and final point will lie in one of the closed hemispheres and this closed hemisphere will have 4 points.