Exercise 3

Orientation test in 2.5D and circle-point classification

I use the procedure explained in class for determining the relative position of a point with respect to a circle.

It consists of projecting the points to a paraboloid whose equation is $z=x^2 + y^2$, finding the plane that the projections of the points defining the circle make and checking whether the querying point is over the plane (outside), in the plane (boundary) or under the plane (inside).