CP.2.7.5.a, Sauer3

Use multivariate Newton's Method to find the two points in common of the three given spheres in three-dimensional space.

   a. Each sphere has radius 1, with centers $(\ 1, \ \ 1, \ \ 0 \ )$, $(\ 1, \ \ 0, \ \ 1 \ )$, and $(\ 0, \ \ 1, \ \ 1 \ )$.

The answers are $(\ 1, \ \ 1, \ \ 1 \ )$ and $\left(\ \frac{1}{3}, \ \ \frac{1}{3}, \ \ \frac{1}{3} \ \right)$.