

NAME :

Find the point on the surface $x^2 + 3xy + 2y^2 + 7x$ that lies closest to the origin.

1. Give the Sage command(s) to define this problem as a polynomial system.

2. Give the Sage command(s) to solve the polynomial system.

Also give all real solutions of this system.

Alternative: Bring to class on Monday the answers to assignments 2 and 6 of the fifth lecture on MATLAB; 1, 2, and 3 of the assignments in the first lecture on Sage.