1. Write a MATLAB code to find the value of $\int\limits_{0}^{1}\int\limits_{0}^{x}\int\limits_{0}^{y} xyz\, dz\, dy\, dx$ and execute it. Also visualize it.

2. Write a MATLAB code draw the three dimensional vector field for the vector $x^2\,\vec{i} - y^2\,\vec{j} + z^2\,\vec{k}$.