

### Exercise V-7

**Given:**

A deformed homogeneous body made of an isotropic linear elastic material ( $E=2\text{GPa}$ , and  $\nu = 0.25$ ), has the displacement field:

$$u_1 = x_1 x_3$$

$$u_2 = -x_1 x_2$$

$$u_3 = x_1^2 - x_3^2$$

**Questions:**

- Compute the components of the strain tensor.