## EAS 421 Structural Geology

## Second mid-term test, sample questions

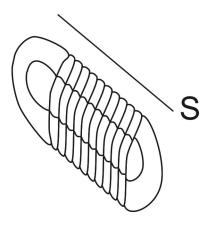
Answer all the questions. You are encouraged to illustrate your answers with clearly labelled diagrams. Time allowed: 45 minutes

- 1 Explain the difference between the following pairs:
  - a Strain and stress
  - b Homogeneous and heterogeneous strain
  - c Longitudinal strain and shear strain
  - d Infinitesimal strain and finite strain

(40%)

(15%)

2 On the diagram a second-year student has drawn line S and called it a strain axis. Explain why the student must be wrong. (10%)



- 3 Draw a diagram to show how a coaxial deformation might produce folds and boudins in the same rock (20)
- 4 Explain how a rollover anticline forms adjacent to a normal fault in a rift setting (15%)
- 5 Explain briefly why the cross-section below fails to balance.

