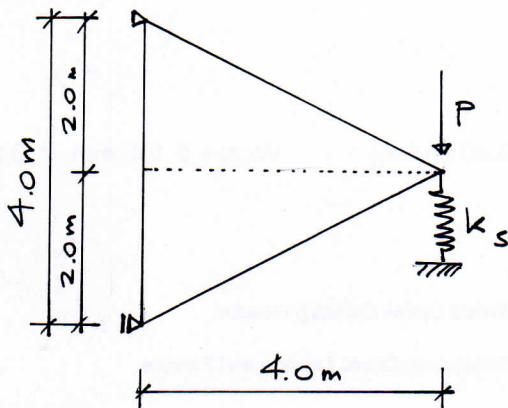


FINITE ELEMENT METHOD * HOME WORK 5

- 1) a) Determine the displacements, strains and stresses for the plane stress system by using triangular (area) coordinates given in Figure .

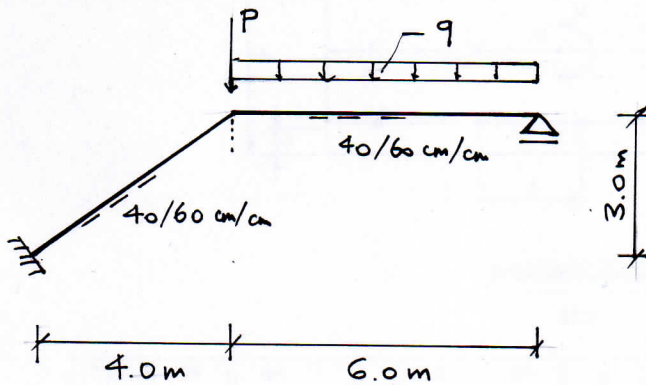
Note: Use two element as shown in Figure.

$E=30000 \text{ MPa}$, $\mu =0.20$, $t=0.15\text{m}$, $k_s=40.000$, kN/m , $P=200\text{kN}$,



- 2) Solve the given frame system by Matrix-Displacement Method and draw the moment, shear and axial force diagrams.

$E=32000 \text{ MPa}$, $P=120\text{kN}$, $q=30 \text{ kN/m}$



Submittal date: 2nd. May. 2018 (in exam)