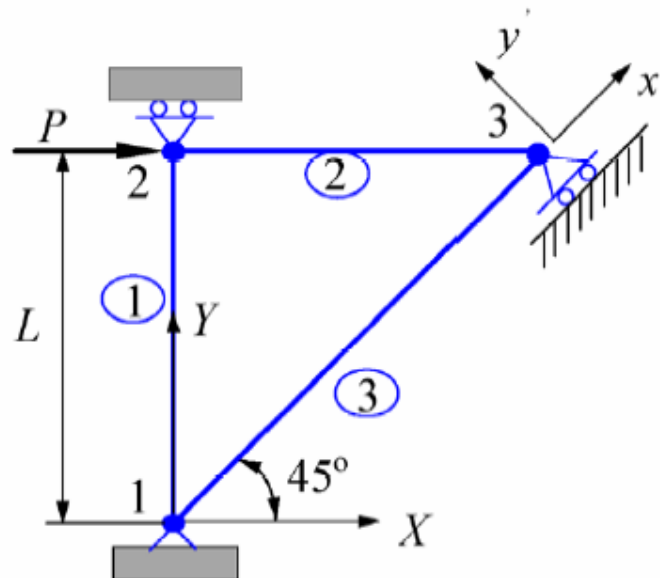


MENG 412
Homework Assignment 3
Due Sunday: 24/5/1425 H



For the plane truss shown above,

$$P = 1000 \text{ kN}, \quad L = 1 \text{ m}, \quad E = 210 \text{ GPa},$$

$$A = 6.0 \times 10^{-4} \text{ m}^2 \quad \text{for elements 1 and 2,}$$

$$A = 6\sqrt{2} \times 10^{-4} \text{ m}^2 \quad \text{for element 3.}$$

Determine the displacements and reaction forces.

$$L^{(1)} = 10$$

$$E^{(1)} A^{(1)} = 100$$