

Tutorial Sheet #7

Assigned on Thursday, September 24

1. For the frame shown in **Figure 1**, draw the *bending moment*, *shear force* and *axial force diagrams*. Joint displacements subjected to the given loading are found to be:

Node 2: $X = 2.449 \text{ mm}$, $Y = -0.12 \text{ mm}$, $R = -0.003$

Node 3: $X = 2.409 \text{ mm}$, $Y = -0.109 \text{ mm}$, $R = 0.002$

For all the members, take $E = 2.17185 \times 10^7 \text{ kN/m}^2$ and $\nu = 0.17$. All the members have a square cross section of $0.3 \text{ m} \times 0.3 \text{ m}$.

