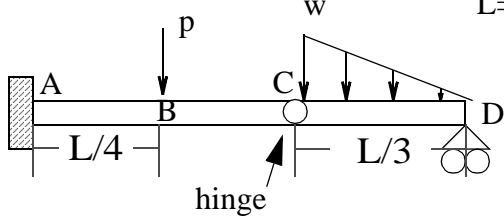


HW #9 assigned 4/10/03, due 4/22/03

200 Weil Hall Civil and Coastal Engineering lab has Visual Analysis (VA) installed on each machine. You are NOT required to purchase the software for your home machine. You should have enough time to complete your assignments at school.

Problem 1) Analyze the following beam structure using VA. Submit the problem statement, a write up including a picture of the deformed shape, moment diagram from VA, and a table with displacements. This was past of HW#1_2

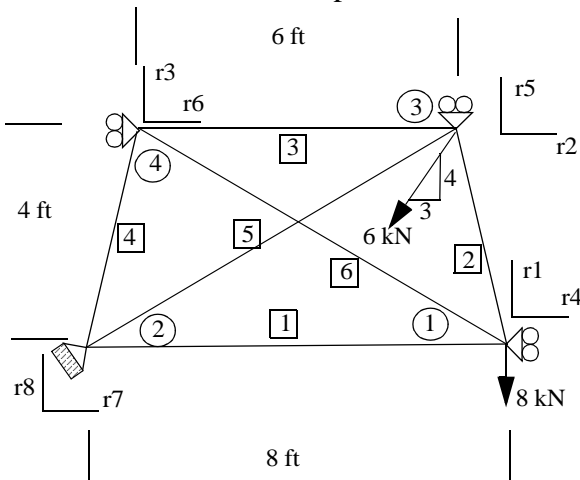
$p=10 \text{ kN}$
 $w=10 \text{ kN/m}$
 $L=12 \text{ m}$
 $E=200 \text{ GPa}$
 $I=70(10^6) \text{ mm}^4$



Problem 2) Analyze the following truss structure using VA. Submit the problem statement, a write up including a picture of the deformed shape, and a table with displacements and member forces.

$E = 29000 \text{ ksi}$
 $A = 2 \text{ in}^2$

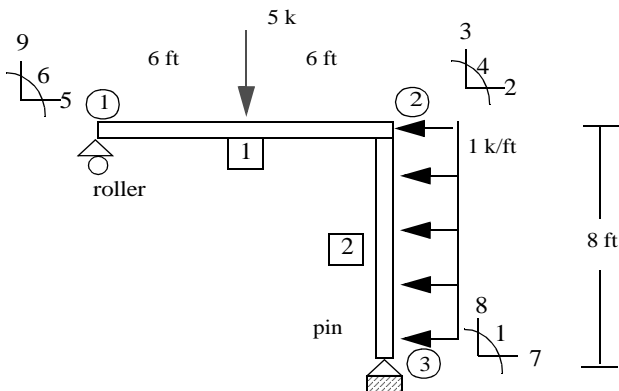
○ node number
 □ element number



Problem 3)

Use VA to analyze the frame structure below. Complete the same write up as for problem 1).

$E= 29000 \text{ ksi}$
 $I= 800 \text{ in}^4$
 $A= 5 \text{ in}^2$



Compare your results with the previous homeworks. Which quantities do not match?