Assignment #5
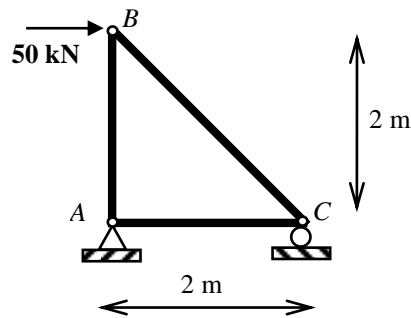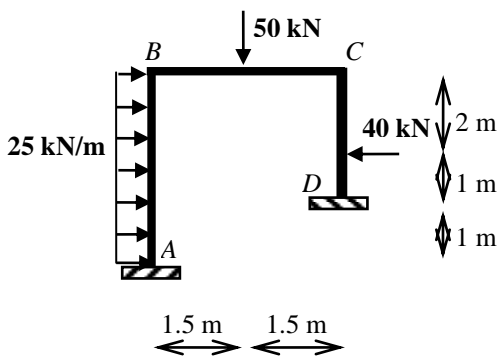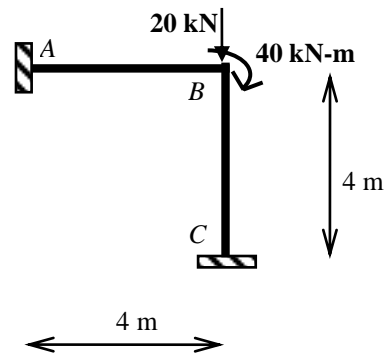
Assigned on Tuesday, September 22

1)   Find out the end forces and end deformations of all the members for the 2-D frame system shown in **Figure1** using the *direct stiffness method*. For all members, consider, $E = 200$ GPa, $A = 500$ mm^2, $I = 26041.67$ mm^4.

2)   Draw BMD, SFD and approximate deflected shape for the frame system shown in **Figure2**, for member AB&CD consider, A=8516.112mm2, I=1.4568x10^{8}mm4. & for member BC consider, A =12903.2 mm2, I = 1.4193x10^8 mm4 & $E = 200$ GPa.

3)   Draw BMD, SFD and approximate deflected shape for the frame system shown in **Figure3**, for all member consider, $A = 2845.155$ mm^2, $I = 2.8678$x10^7 mm^4 & $E = 200$ GPa.

Figure 1

Figure 2

Figure 3