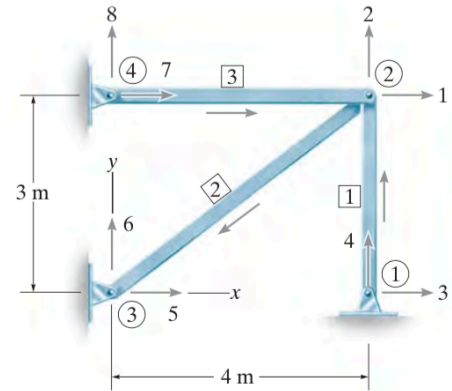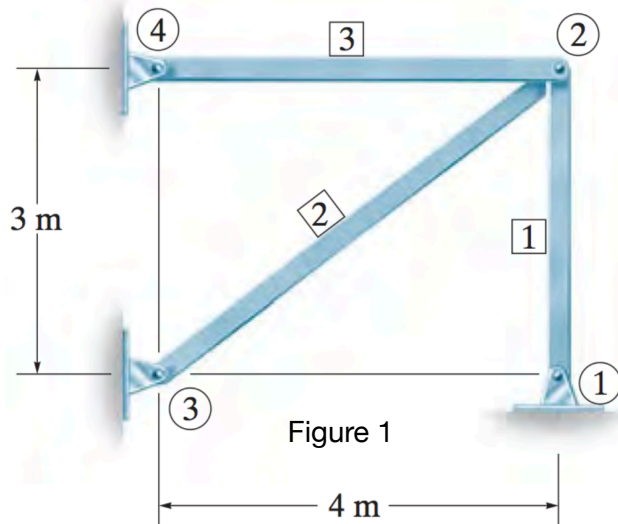# Tutorial 6

1. For the truss shown in Figure 1, find the forces in all the members if support 3 has a vertical downward settlement of 30 mm and a horizontal displacement of 20 mm. Take $AE = 8(10^3)$ kN.

Figure 1

2. For the truss shown in Figure 1 find the force in all the members if members 1 and 3 were, respectively, made 10 mm and 15 mm too short and member 2 was made 20 mm too long before it was fitted into place. $AE = 8(10^3)$ kN.

3. Determine the vertical displacement of joint 2 and the support reactions for the truss shown in Figure 2 by using the degrees of freedoms shown. AE is constant.
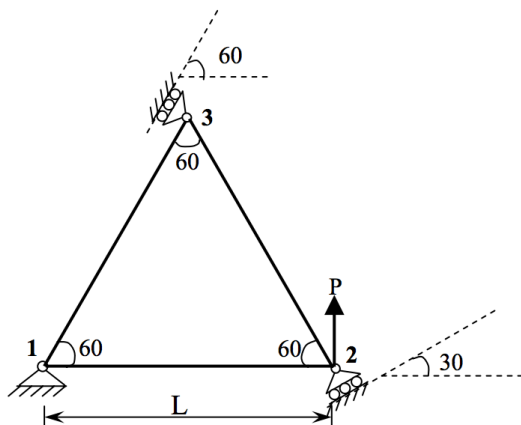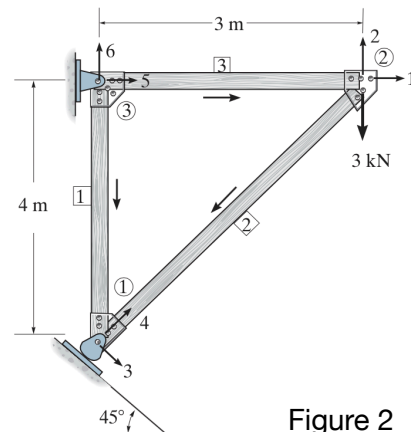
Figure 2

4. For the truss shown in Figure 3, find the displacement and the reactions at the supports.

Figure 3