Example 1.1.3b – Now the vertical force at joint *D* has been increased to 10 kN as shown in Figure 2, making the problem symmetric.

  a) Determine the magnitude and sense of the **reaction forces** at both supports.
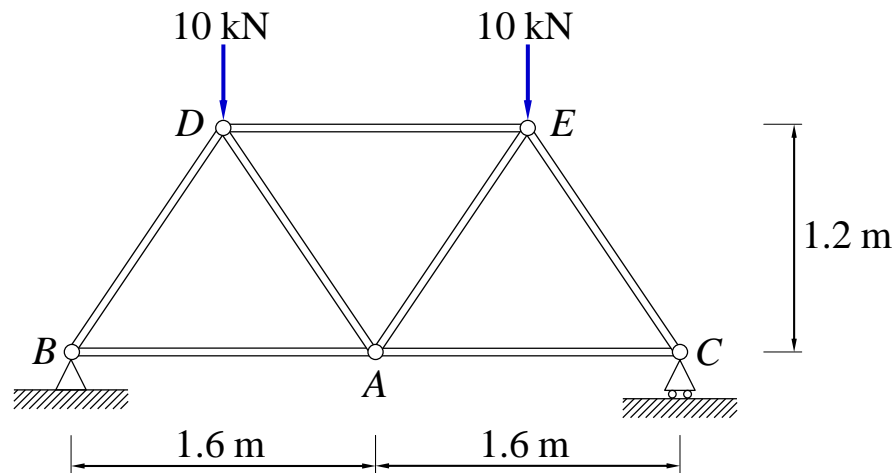 b) Determine the magnitude and sense of the **internal forces** in each of the 7 members.

Figure 2: Pin-jointed truss under symmetrical loading.

10 kN   10 kN

D E

1.2 m

B A C

1.6 m   1.6 m

10 kN

D T_{DE}

T_{BD} T_{AD}

10 kN

T_{DE} E

T_{AE} T_{CE}

T_{AD} T_{AE}

T_{AB} A T_{AC}