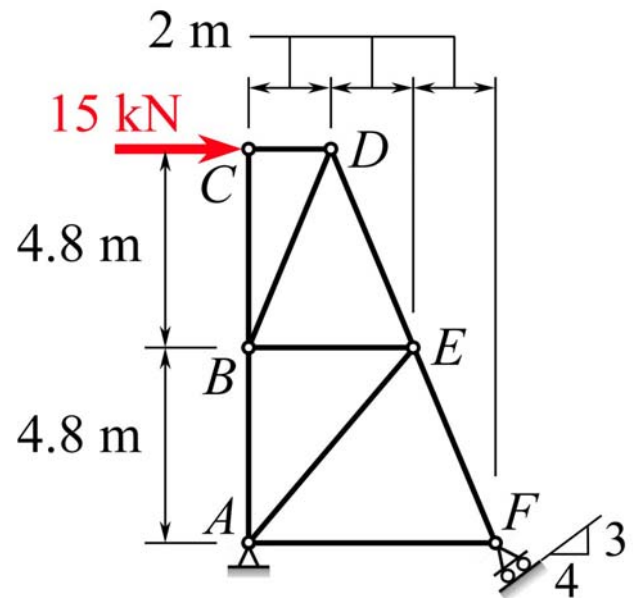


## MEEG 2003 [Quiz #8.m18.073](#)

1. Define a *compound truss* and draw a sketch with *applied loads* and appropriate *supports* to illustrate such a truss. ①

2. A simple truss is shown. Determine (a) the reaction  $\mathbf{F}_F$  at  $F$ , (b) the reaction  $\mathbf{A}$  at  $A$ , (c) the axial forces  $F_{EF}$ ,  $F_{AF}$ ,  $F_{AB}$ , and  $F_{AE}$  in members  $EF$ ,  $AF$ ,  $AB$ , and  $AE$ . ⑨



2. *FBD* for entire truss: ①

$$\mathbf{F}_F = -18\mathbf{i} + 24\mathbf{j} \text{ kN} \quad \text{①} \quad \mathbf{A} = 3\mathbf{i} - 24\mathbf{j} \text{ kN} \quad \text{①}$$

*FBD* for joint  $F$ : ①

$$F_{EF} = 26 \text{ kN } C \quad \text{①} \quad F_{AF} = 8 \text{ kN } C \quad \text{①}$$

*FBD* for joint  $A$ : ①

$$F_{AB} = 18 \text{ kN } T \quad \text{①} \quad F_{AE} = \sqrt{61} \quad F_{AE} = 7.81 \text{ kN } T \quad \text{①}$$