

Solved example with link

For the following beam draw N.F.D, S.F.D and B.M.D

SOL.

$$\sum M_1 = 0$$

$$-3 \times 3 + 3 \times 3 = 0$$

$$F_3 = 3t$$

$$\sum F_x = 0$$

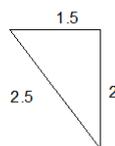
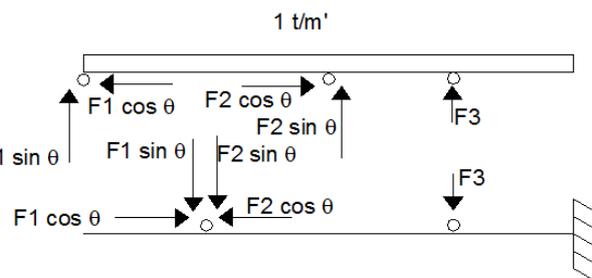
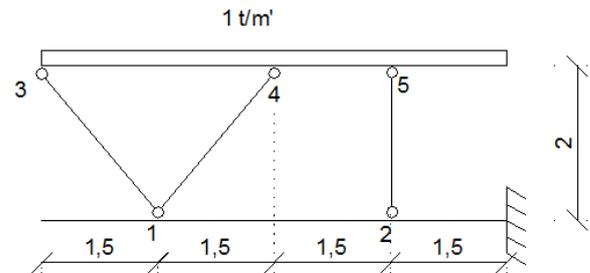
$$-F_1 \cos \theta + F_2 \cos \theta = 0$$

$$F_1 = F_2$$

$$\sum F_y = 0$$

$$F_1 \sin \theta + F_2 \sin \theta + 3 - 6 = 0$$

$$F_1 = F_2 = 1.875$$



$$\sin \theta = 2/2.5 = 0.8$$

$$\cos \theta = 1.5/2.5 = 0.6$$

