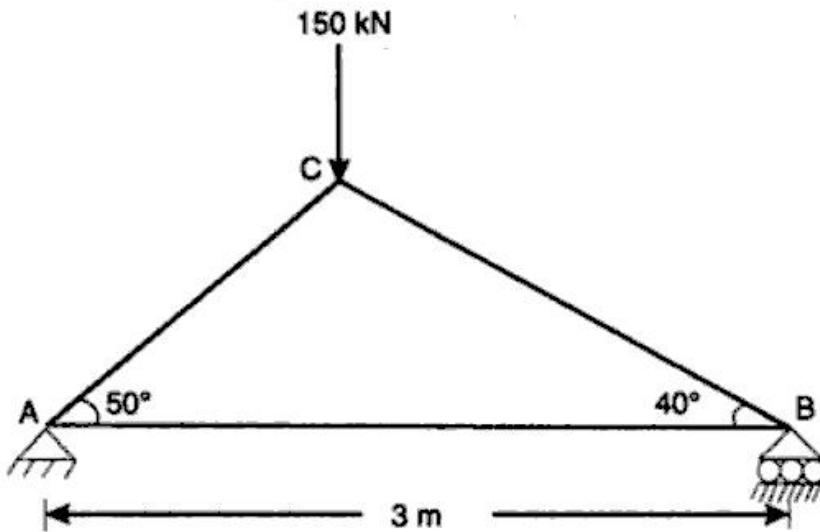


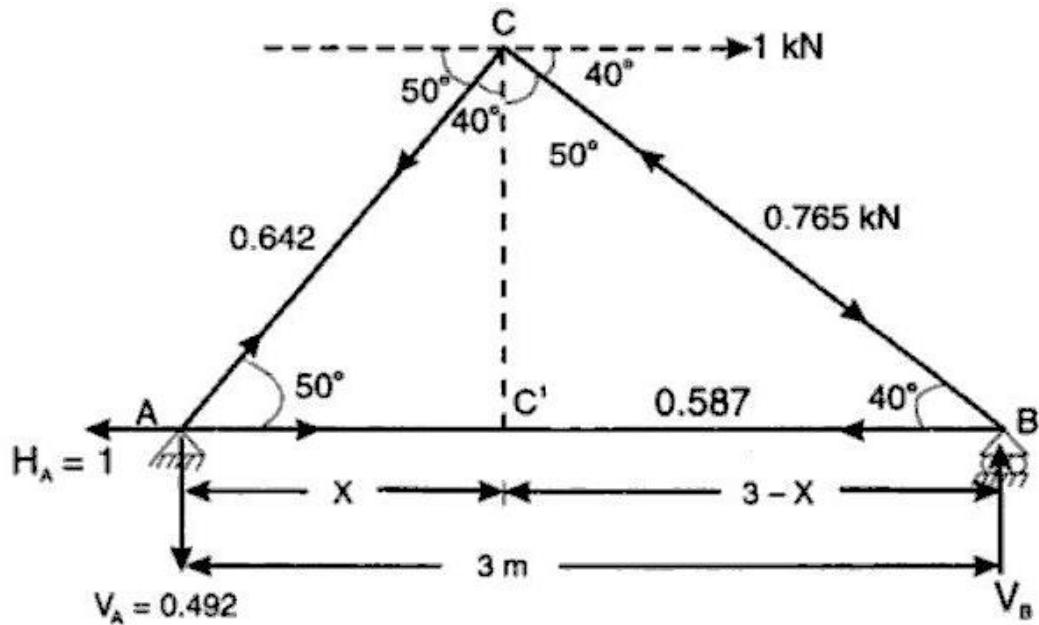
#2 ASSIGNMENT (virtual work method)

Using the principle of virtual work, determine the vertical and horizontal deflection components of joint C of the truss in Fig. 1.6. $E = 200 \times 10^6 \text{ kN/m}^2$ and cross-sectional area of each bar = $150 \times 10^{-6} \text{ m}^2$.

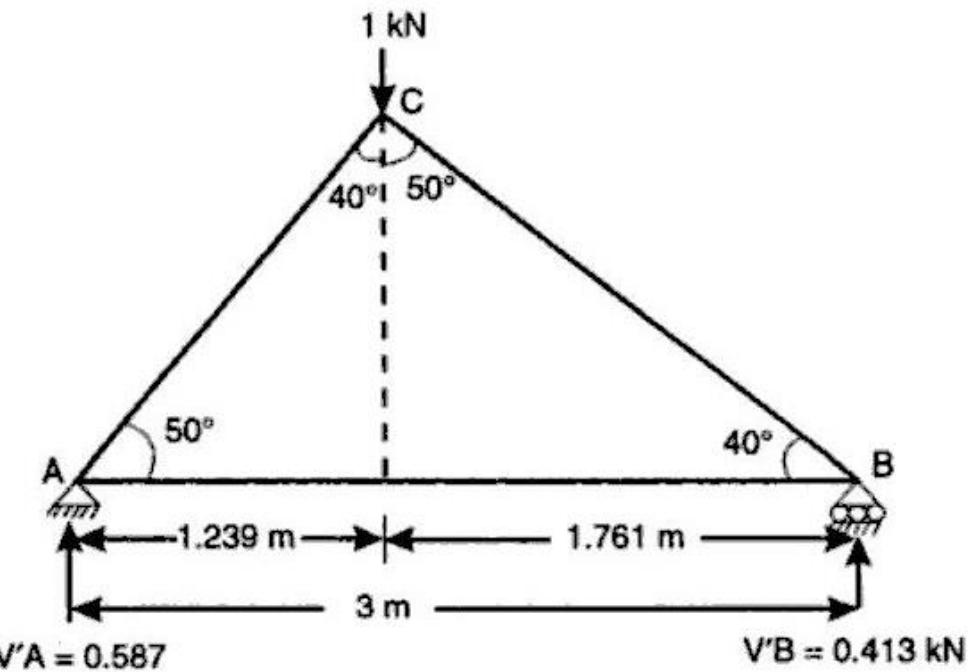


Hint:

- i) Horizontal virtual forces for horizontal displacement at C



ii) Vertical virtual forces for vertical displacement at C



iii) Answers

Horizontal deflection of point C=5.24 (unit ?)

vertical deflection of point C=14 (unit ?)