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Joint D

$\frac{1}{2} \left( \frac{3}{4} \right) 4 = 0.75 \text{ kN}$

$\theta = \tan^{-1} \frac{2}{4} = 26.6^\circ$

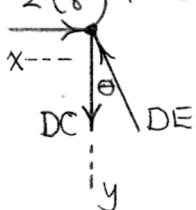
$\cos \theta = \frac{2}{\sqrt{5}}, \sin \theta = \frac{1}{\sqrt{5}}$

$\Sigma F_x = 0: DE \frac{1}{\sqrt{5}} - 0.75 = 0$

$DE = 1.677 \text{ kN C}$

$\Sigma F_y = 0: DC - 1.677 \frac{2}{\sqrt{5}} = 0$

$DC = 1.5 \text{ kN T}$



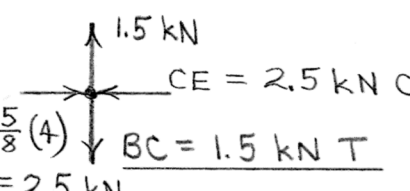
Joint C

$1.5 \text{ kN}$

$CE = 2.5 \text{ kN C}$

$\frac{5}{8} (4) = 2.5 \text{ kN}$

$BC = 1.5 \text{ kN T}$



Joint E

$1.677 \text{ kN}$

$\Sigma F_{x'} = 0: 2.5 \frac{2}{\sqrt{5}} - BE \sin 2\theta = 0$

$\sin 2\theta = 0.8$

So  $BE = 2.80 \text{ kN T}$

