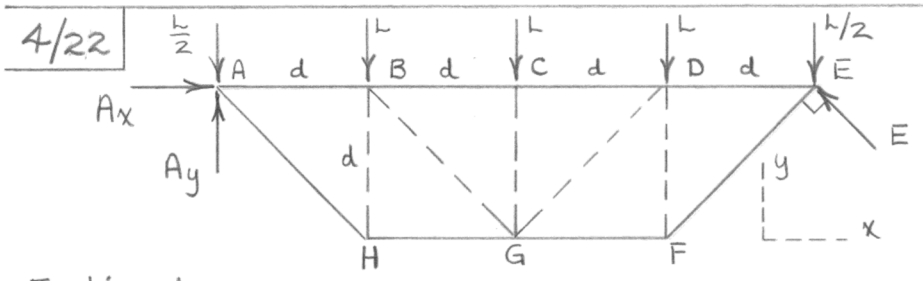
4/22



Entire truss:

$\circlearrowleft + \sum M_A = 0$: $-Ld - L(2d) - L(3d) - \frac{L}{2}(4d) + E\frac{\sqrt{2}}{2}(4d) = 0$

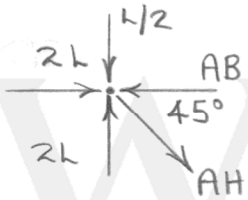
$E = 2\sqrt{2}L$

$\sum F_x = 0$: $A_x - 2\sqrt{2}L\frac{\sqrt{2}}{2} = 0$, $A_x = 2L$

$\sum F_y = 0$: $A_y - 4L + 2\sqrt{2}L\frac{\sqrt{2}}{2} = 0$, $A_y = 2L$

By inspection of joint C, $\underline{CG = L \text{ C}}$

Joint A:



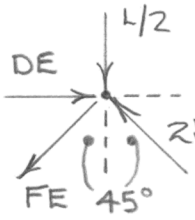
$\sum F_y = 0$: $2L - \frac{L}{2} - AH\frac{\sqrt{2}}{2} = 0$

$AH = \frac{3\sqrt{2}}{2}L$ T

$\sum F_x = 0$: $2L + \frac{3\sqrt{2}}{2}L\frac{\sqrt{2}}{2} - AB = 0$

$AB = \frac{7}{2}L$ C

Joint E



$\sum F_y = 0$: $-\frac{L}{2} + 2\sqrt{2}L\frac{\sqrt{2}}{2} - FE\frac{\sqrt{2}}{2} = 0$

$FE = \frac{3\sqrt{2}}{2}L$ T

$\sum F_x = 0$: $DE - \frac{3\sqrt{2}}{2}L\frac{\sqrt{2}}{2} - 2\sqrt{2}L\frac{\sqrt{2}}{2} = 0$

$\underline{DE = \frac{7L}{2} \text{ C}}$