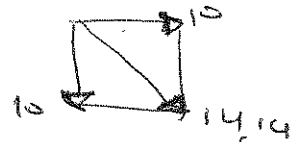


$$q_1 = q_2 = q_3 = q_4 = 2 \text{ kN/m}$$

$$CD = 5\sqrt{2}$$

$$Q_2 + Q_3 = 2 \times 5\sqrt{2} = 14,14 \text{ kN}$$

$$Q_1 + Q_4 = 5 \times 2 = 10 \text{ kN}$$



$\sum M \text{ about } A$

$$-10 \times 2\frac{1}{2} - 10 \times 7\frac{1}{2} + 10 \times 7\frac{1}{2} - 10 \times 7\frac{1}{2} - 10 \times 2\frac{1}{2} - 10 \times 2\frac{1}{2} - 150 = -10 F_B \Rightarrow F_B = 15 \text{ kN } \uparrow$$

$\sum V = 0$

$$10 - 10 - 15 + F_A = 0$$

$$F_A = 15 \text{ kN } \downarrow$$

$\sum M \text{ about } D \text{ (Links)}$

$$15 \times 5 + 10 \times 7\frac{1}{2} + 10 \times 2\frac{1}{2} + 10 \times 2\frac{1}{2} - 10 F_{Ah} = 0$$

$$F_{Ah} = 20 \text{ kN } \leftarrow$$

$\sum H = 0$

$$10 + 10 + 10 + 10 - 20 - F_{Bh} = 0$$

$$F_{Bh} = 20 \text{ kN}$$

$$S_{1v} = S_{2v} = \pm 25 \text{ kN}$$