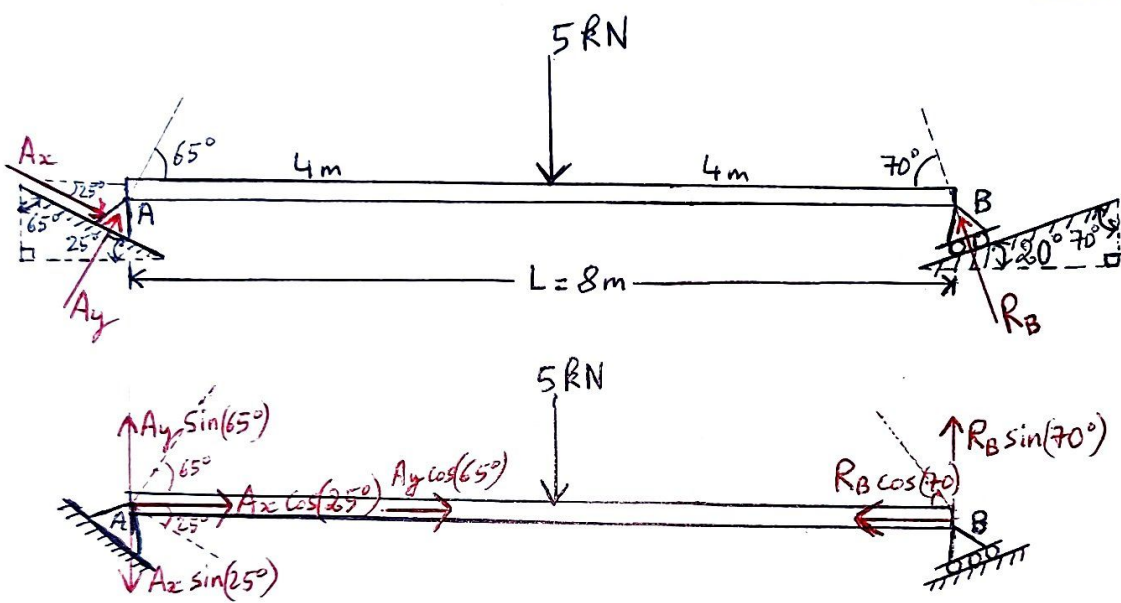


Date: 22nd November 2021



$$+\circlearrowleft \sum M_A = 0 \Rightarrow (-5 \text{ kN})(4 \text{ m}) + [R_B \sin(70^\circ)](8 \text{ m}) = 0 \Rightarrow \boxed{R_B = 2.66 \text{ kN}}$$

$$+\uparrow \sum F_y = 0 \Rightarrow A_y \sin(65^\circ) - 5 \text{ kN} + R_B \sin(70^\circ) - A_x \sin(25^\circ) = 0$$

$$A_y \sin(65^\circ) - 5 \text{ kN} + (2.6604) \sin(70^\circ) - A_x \sin(25^\circ) = 0$$

$$A_y = \frac{A_x \sin(25^\circ)}{\sin(65^\circ)} + \frac{5 \text{ kN}}{\sin(65^\circ)} - \frac{2.6604 \sin(70^\circ)}{\sin(65^\circ)} = [0.4663076582] A_x + 2.758490865 \text{ kN}$$

$$+\rightarrow \sum F_x = 0 \Rightarrow A_y \cos(65^\circ) + A_x \cos(25^\circ) - R_B \cos(70^\circ) = 0$$

$$[0.466 A_x + 2.758] \cos(65^\circ) + A_x \cos(25^\circ) - 2.6604 \cos(70^\circ) = 0$$

$$\Rightarrow \boxed{A_x = -0.231904427 \text{ kN} = 0.232 \text{ kN} \leftarrow}$$

$$\boxed{A_y = [0.466 A_x + 2.758] \text{ kN} = 0.466 (-0.232 \text{ kN}) + 2.758 = 2.65 \text{ kN}}$$