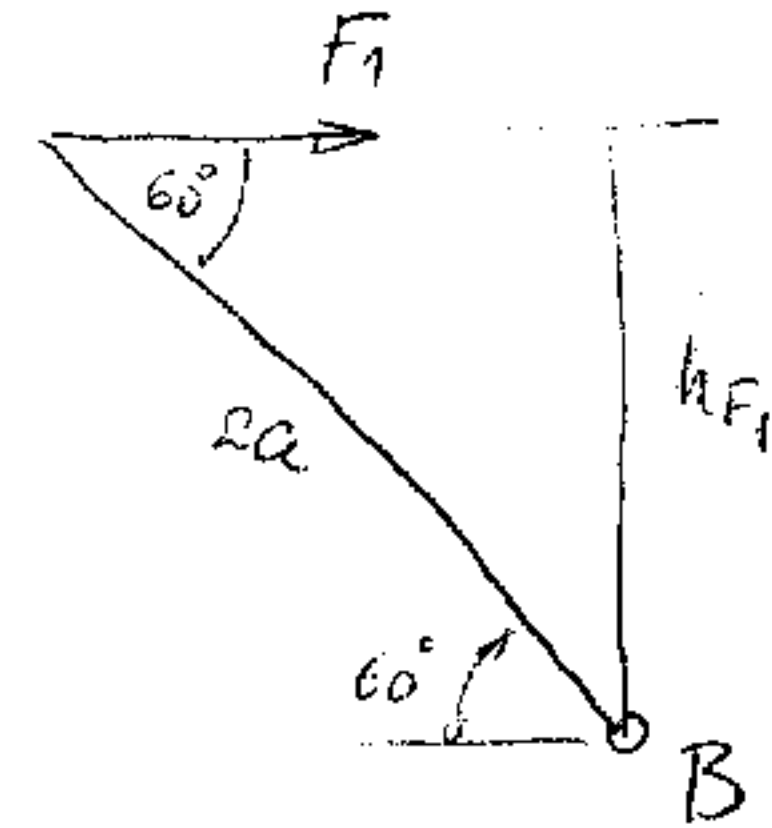
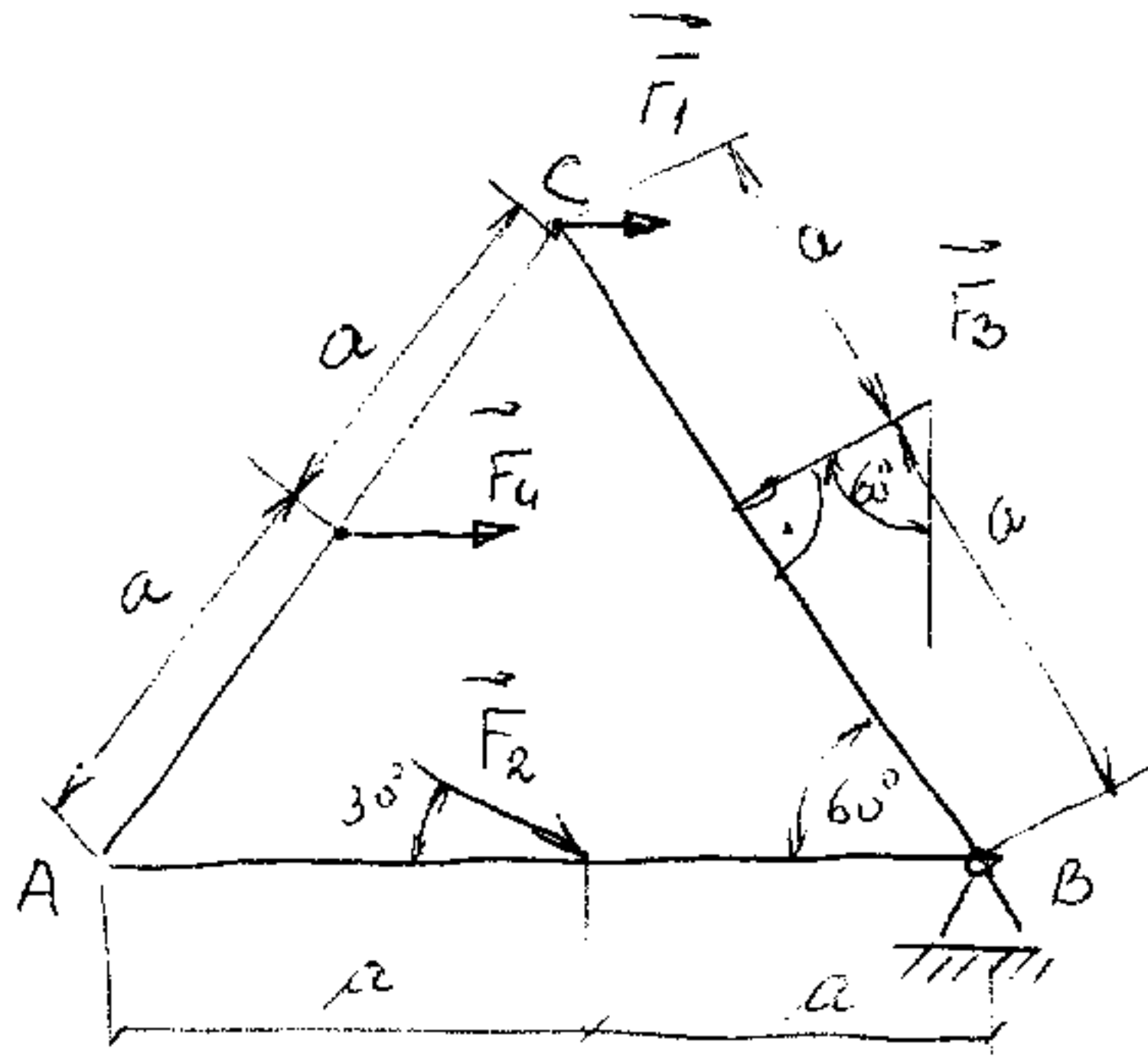
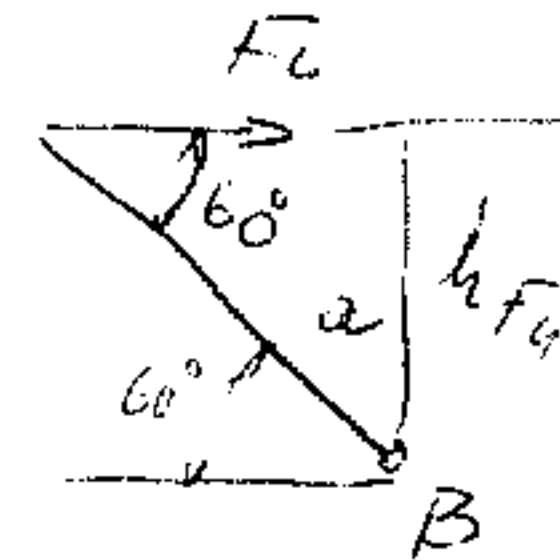


1. zadatok-grupa B



$$h_{F_1} = 2a \sin 60^\circ$$



$$h_{F_4} = a \sin 60^\circ$$

$$X_B = \sum X = F_1 + F_2 \cos 30^\circ - F_3 \sin 60^\circ + F_4$$

$$Y_B = \sum Y = -F_2 \sin 30^\circ - F_3 \cos 60^\circ$$

$$\sum M_B = -F_1 \cdot 2a \cdot \sin 60^\circ + F_2 \sin 30^\circ a + F_3 \cdot a - F_4 \cdot a \cdot \sin 60^\circ$$

$$X_B = 1 + 2 \cdot 0,866 - 3 \cdot 0,866 + 4 = 4,134 \text{ kN}$$

$$Y_B = -2 \cdot 0,5 - 3 \cdot 0,5 = -2,5 \text{ kN}$$

$$M_B = -1 \cdot 2 \cdot 0,866 + 2 \cdot 0,5 \cdot 1 + 3 \cdot 1 - 4 \cdot 1 \cdot 0,866 = -1,196 \text{ kNm}$$