

$$\textcircled{1} \quad T_1 - mg = 0$$

$$\boxed{T_1 = mg}$$

$$\textcircled{2} \quad \sum F_x = 0 \Rightarrow T_2 \cos \phi - T_3 \cos \theta = 0$$

$$\textcircled{3} \quad \sum F_y = 0 \Rightarrow T_2 \sin \phi + T_3 \sin \theta - T_1 = 0$$

