HW2. The figure shows a right triangle-shaped rigid body, its mass is $m[k g]$, and it is supported by a hinge support on the left side. The sides of the triangle are $\boldsymbol{a}[m]$ and $\boldsymbol{b}[m]$ long. The body is in equilibrium, and the force $F$ is perpendicular to the hypotenuse. Compute angle $\boldsymbol{\alpha}\left[{ }^{\circ}\right]$, the magnitude of force $\boldsymbol{F}[\mathbf{N}]$ and its components $\boldsymbol{F}_{x}[\mathrm{~N}]$ and $\boldsymbol{F}_{y}[\mathrm{~N}]!\left(\mathrm{g}=10 \mathrm{~m} / \mathrm{s}^{2}\right)$
[40 points]


