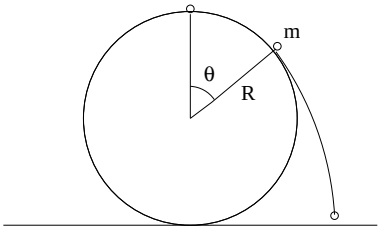
[mex102] Time of slide and time of flight

Consider the problem already encountered in [mex1]. The particle starts to slide from rest at $\theta = 0$.
(a) Find the time it takes the particle to slide from angular position $\theta_0 > 0$ to angular position θ_c, where it takes off.
(b) Find (for $R = 10\text{m}$ and $g \simeq 10\text{m/s}^2$) the time between take-off from the sphere and landing on the plane.



Solution: