

Advanced engineering dynamics, 5C1150

Hand in assignments, batch 2, HT 2006

Due Wednesday 27/9

1) Do problem 10 in *A Collection of Problems in Rigid Body and Analytical Mechanics*, i.e. calculate the time $T(\alpha)$ required for the coin to complete a full circuit.

Then put the radius to $r = 1.5$ cm (roughly a Swedish five crown coin) and plot the period T as a function of α for $0.1 < \alpha < \pi/2 - 0.1$. Find (numerically) the angle α , expressed in degrees, that makes the period equal to $T = 1.6$ seconds.