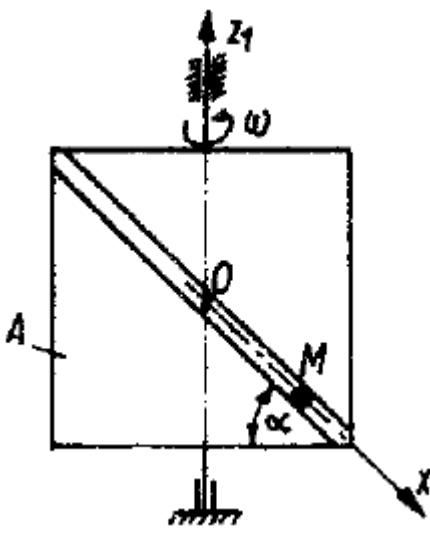
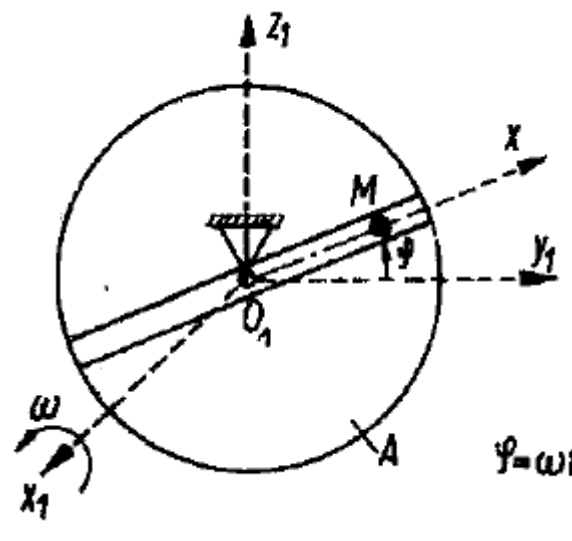
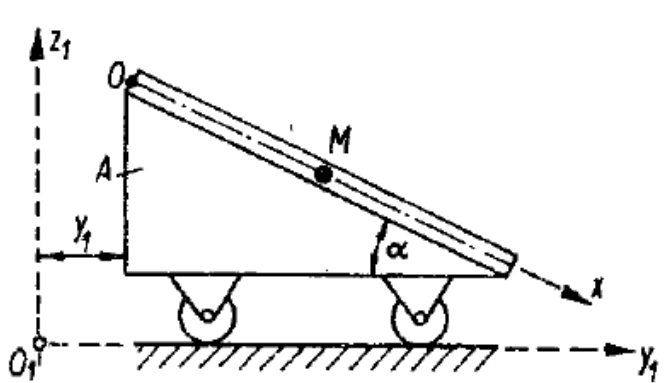
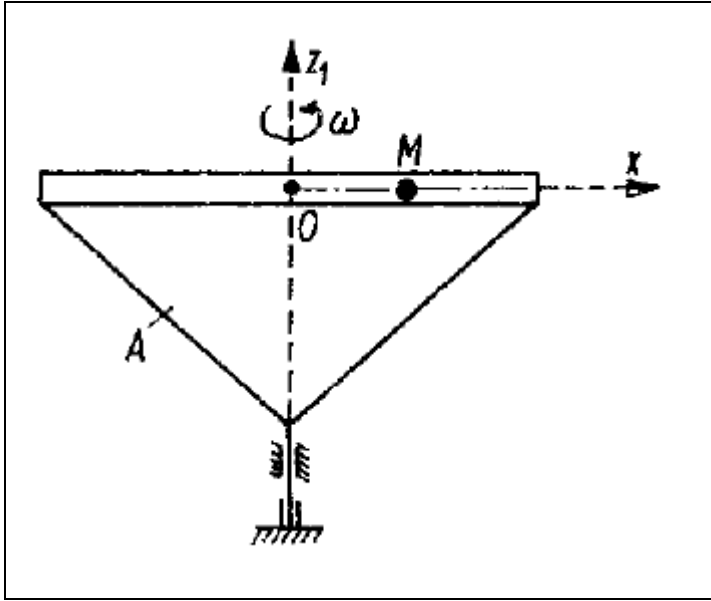


The ball considered as a material point moves inside the cylindrical channel of body A, which is also in motion. Find the equation for the relative motion of this ball $x(t)$, taking the point O as its starting point. Also calculate the x coordinate and pressure of the ball on the channel wall when time t is given.

	$x_0 = 0,5m$ $\dot{x}_0 = 0m/s$ $t = 0,2s$ $\alpha = 45^\circ$ $m = 0,03kg$ $\omega = 2\pi s^{-1}$
	$x_0 = 0,5m$ $\dot{x}_0 = 0m/s$ $t = 1s$ $m = 0,01kg$ $\omega = \pi s^{-1}$
	$x_0 = 0,5m$ $\dot{x}_0 = 0,1m/s$ $t = 0,1s$ $\alpha = 30^\circ$ $m = 0,05kg$ <p>equation of motion of body A</p> $y_1 = 2 + t^2$ <p>friction coefficient</p> $\mu = 0,2$



$$\begin{aligned}x_0 &= -0,5m \\ \dot{x}_0 &= -0,1m/s \\ t &= 0,2 s \\ m &= 0,01 kg \\ \omega &= 2\pi s^{-1}\end{aligned}$$