

**[mex71] Inertia tensor of a cone**

Calculate the principal moments of inertia for a homogeneous cone of mass  $M$ , height  $h$ , and radius  $R$  at the base. Perform the calculation for rotations about an axis (a) through the apex of the cone, (b) through the center of mass. Express all results as functions of  $M, R, h$ .

**Solution:**