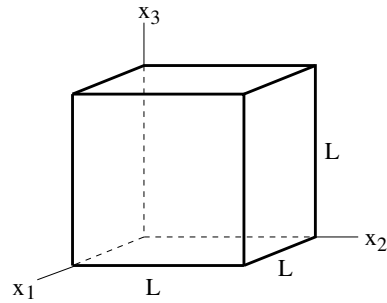


[mex68] Inertia tensor of homogeneous cube

Consider a cube of mass M and side L and a coordinate system with origin at one corner of the cube and axes along the adjacent edges. (a) Calculate the inertia tensor I_{ij} for this body reference frame. (b) Determine the principal moments of inertia I_1, I_2, I_3 . (c) Determine the directions of the principal axes of inertia relative to the coordinate system used originally.



Solution: