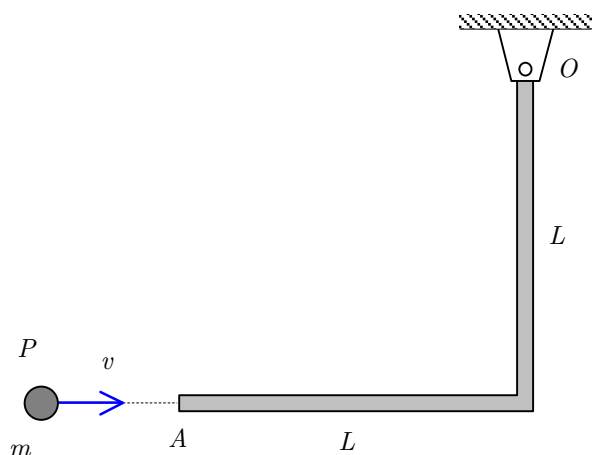


**Homework H.5.L**

**Given:** Particle P (of mass  $m$ ) strikes end A of a stationary homogeneous L-shaped bar (of mass  $M$ ) with a speed of  $v$ . The coefficient of restitution for the impact of P with end A of the bar is known to be  $e$ .

**Find:** Determine the angular speed of bar OA immediately after the impact.



*HORIZONTAL PLANE*

Use the following parameters in your analysis:  $M = 30$  kg,  $m = 10$  kg,  $L = 2$  m,  $v = 40$  m/s and  $e = 0$ .