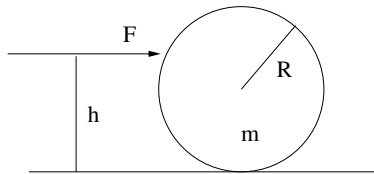


**[mex4] Make the billiard ball roll**

Find the height  $h$  at which a billiard ball should be struck (via horizontal impulse) to make it roll without slipping on a surface with negligible friction. The billiard ball is to be regarded as a homogeneous sphere with radius  $R$  and mass  $m$ .



**Solution:**