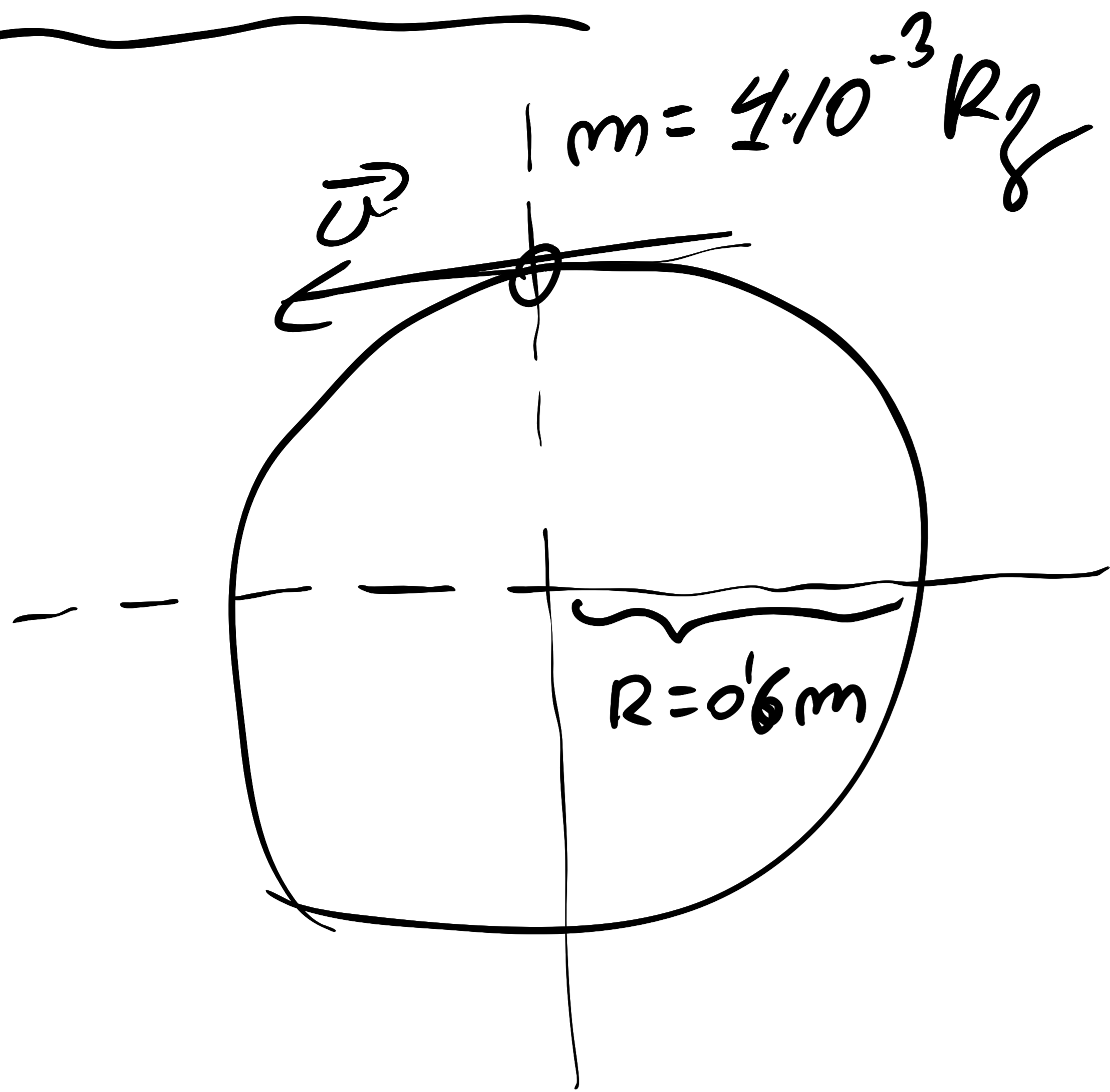


4. M.C.M.



$$\omega = 3000 \text{ r.p.m.} = 3000 \frac{\text{rev}}{\text{min}}$$

$$\omega = 3000 \frac{\text{rev}}{\text{min}} \cdot \frac{2\pi \text{ rad}}{1 \text{ rev}} \cdot \frac{1 \text{ min}}{60 \text{ s}} = 100\pi \text{ rad/s}$$

$$\boxed{\omega = 100\pi \text{ rad/s}}$$

b) $v = \omega \cdot R$

$$v = (100\pi \text{ rad/s}) \cdot (0.06 \text{ m}) = 60\pi \text{ m/s}$$

$$\boxed{v = 188.5 \text{ m/s}}$$