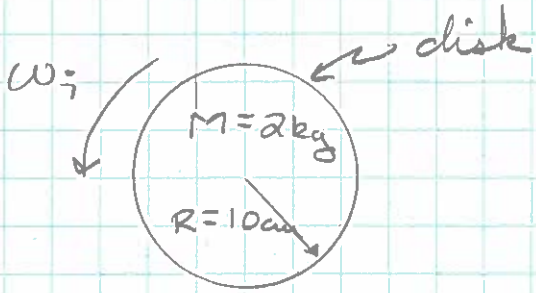
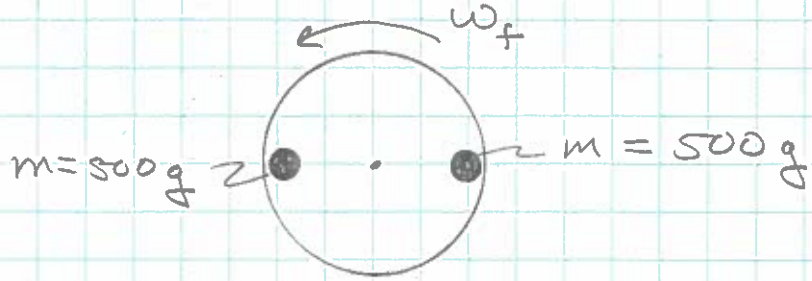
Initial



$\omega_i = 100$ rpm

Final



Find ω_f: Note, the forces between the turntable and blocks are internal, thus produce internal torques.

∴ Angular momentum is conserved.

Or, $L_i = L_f$

$$I_d \omega_i = I_d \omega_f + I_m \omega_f + I_m \omega_f$$

where $I_d = \frac{1}{2} M R^2 = 0.01 \text{ kg m}^2$

$I_m = mR^2 = 0.005 \text{ kg m}^2$

So, $I_d \omega_i = (I_d + 2I_m)\omega_f$

∴ $\omega_f = \dfrac{I_d}{(I_d + 2I_m)} \omega_i = \underline{50 \text{ rpm}}$