**Noteguide for Moment Of Inertia (Videos 8G) Name**

 

 



Example: Three 40. kg children are sitting 1.2 m from the center of a merry-go-round that is a uniform cylinder with a mass of 240 kg and a radius of 1.5 m. What is its total moment of inertia?

(Whiteboards on the back)

Whiteboards;

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| 1. What is the moment of inertia of a 3.5 kg point mass that is 45 cm from the center of rotation?(0.71 kg m2) | 2. A uniform cylinder has a radius of 1.125 m and a moment of inertia of 572.3 kg m2. What is its mass?(904.4 kg) |
| 3. A sphere has a mass of 45.2 grams, and a moment of inertia of 5.537 x 10-6 kg m2. What is its radius? (0.0175 m) |