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Pre-Lab 10

Dr. Gill

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Part 1 = angular velocity is constant so :

$$\omega_i = \frac{\text{radians traveled}}{\text{time}} = \frac{2\pi}{0.8} = 7.85 \text{ rad/s}$$

[takes 0.8 seconds to complete a cycle]

Part 2 =

The time it takes the hollow cylinder to reach the bottom of the incline is independent of mass and decreases with increasing wall thickness. The linear acceleration of the cylinder's center of mass is independent of mass and increases as the wall thickness increases.