

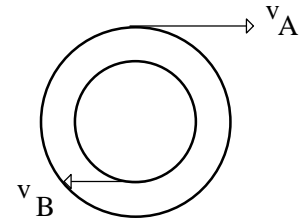
Physics 1121 Experiment 4 Homework

Name \_\_\_\_\_

1. What is meant by "moment of inertia?"

2. Show how to obtain Equation (8) from Equations (5), (6), and (7).

3. The figure shows two disks, A and B, cemented together, that are rotating with angular acceleration  $\alpha$ . The radius of the small disk B is  $2/3$  the radius of the larger disk. Calculate the ratio of the tangential velocity of a point on the rim of disk A to the tangential velocity of a point on the rim of disk B.



4. For the two disks in problem 3, what is the ratio of the angular velocity of disk A to the angular velocity of disk B?