

Phys101 Assignment Cover Sheet

First Name: _____ Last Name: _____ Mark: _____

Student ID: _____ Date: _____

Phys101 Written Assignment #6

Due Monday June 27, 2011, at the end of tutorial

Textbook (Giancoli, 6th edition) page 222 problem #61.

- 61 .** A person of mass 75 kg stands at the center of a rotating merry-go-round platform of radius 3.0 m and moment of inertia $920 \text{ kg} \cdot \text{m}^2$. The platform rotates without friction with angular velocity 2.0 rad/s . The person walks radially to the edge of the platform. (a) Calculate the angular velocity when the person reaches the edge. (b) Calculate the rotational kinetic energy of the system of platform plus person before and after the person's walk.