B Physics Interactive Quiz :   Rotational dynamics   Name:

#	20	question	Answer			0	<--score
# 1	400	cm is the radius of two masses held in the hands of a spinning ice skater, each with velocity 4 m/s. If the radius were 1/4 of this, find the final v for the masses (ignore the mass of the skater).		16	100	0	
# 2	100	kg is the mass of a bucket around a pulley. If the bucket falls 6 meters, and I for the pulley is 30, find the final w for the pulley (assume PE goes only into rotational KE)		19.799	100	0	
# 3	160	cm is the length of a wrench turning a bolt. If a force of 60 N were applied 90° to the handle, find the torque on the bolt.		96	100	0	
# 4	160	Repeat with a force 45° from the axis of the wrench.		67.872	100	0	
# 5	60	cm is the radius of a bicycle wheel that makes 18 revolutions at constant velocity. Find the distance covered by the wheel.		67.824	100	0	
# 6	60	If this takes 8 seconds, find w		14.13	100	0	
# 7	60	Find the angular acceleration		0.01	100	0	
# 8	60	find the tangential acceleration		119.79	100	0	
# 9	840	kg is the mass of a child on one side of a 6 meter long seesaw, with her brother of mass 40 kg on the other end. Find the net torque.		23520	100	0	
# 10	840	If I = 30, find the angular acceleration of the system		784	100	0	

Extra Credit: Explain how helicopters preserve angular momentum in powered flight, including diagrams.