B Physics Interactive Quiz : Circular Motion Name:

	#	2	question	Answer			0	<--score
#	1	8	kg is the mass of a bucket swinging parallel to the ground with velocity 8 m/s and radius 1.2 meters. Find the centrifugal force on the bucket		426.67	100	0	
#	2	8	What is the period of the bucket above?		0.942	100	0	
#	3	8	The same bucket is now swung perpendicular to the ground. What is the period needed to keep the bucket from splashing the spinner?		2.1975	100	0	
#	4	8	When just weightless at the top, what will be the tension in the rope at the bottom?		156.8	100	0	
#	5	10	kg is the mass of a car rounding a non-banked 200 m turn at 40 m/s. Find the μ required to stay on the road.		8.16e-1	100	0	
#	6	4	degrees is the angle of a banked turn at a racetrack of radius 200 meters. Find the Fc if a 900 kg car is driving at 54 m/s on this track		13122	100	0	
#	7	4	Find the maximum velocity this car can make it around this track without flying off if μ is 0.8		41.292	100	0	
#	8	4	Find the normal component of the Fc at this velocity		915.34	100	0	
#	9	12	kg is the mass of your waterbottle on planet Zot, where Mz is 12 ee 24 kg and Rz is 8 ee 6 m. Find the force on your waterbottle		150.08	100	0	
#	10	6	times the radius of the earth around the sun a new planet is discovered. What will its period be in days?		5364.4	100	0	

Extra Credit: Explain how cars can become weightless driving over small hills in the road