Name: Date: Period:

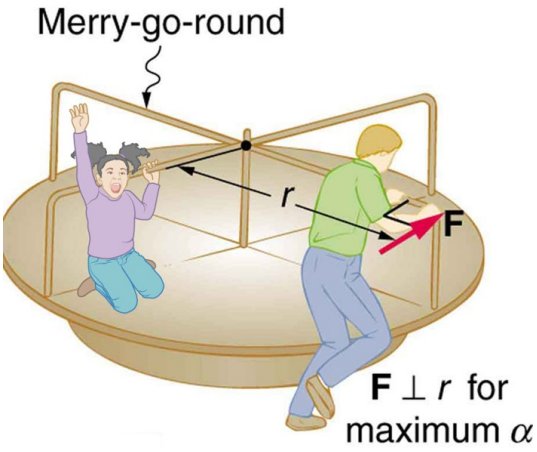
Rotational Energy

Quantities

Concept	Linear/Translational Quantity	Angular/Rotational Quantity	"Bridge"
kinetic energy			
	units:	units:	
work			
	units:	units:	

Practice

Consider a solid disc that is released from rest at the top of a ramp that is 5 meters tall. Assume that the disc does not slip and is perfectly round. How fast will the disc be going when it gets to the bottom of the ramp?



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Consider the father pushing a playground merry-go-round. The 50.0-kg merry-go-round has a 1.50 m radius. An 18.0-kg child sits 1.25 m away from the center. Consider the merry-go-round itself to be a uniform disk with negligible friction and the child to be a particle. If the merry-go-round rotates at 40 rpm, what is the rotational KE?