

Help from Lance on HW 2, Fowles problem 11.9

I find that the expression for the answer in the back of the book is “some what” ambiguous, but dimensional analysis (remember units must make sense) says they mean:

Problem 11.9 Answer $\text{period} = 2\pi a \left[\frac{5}{3g(b-a)} \right]^{\frac{1}{2}}$

Which looks correct to me and is the same answer I have.

On computing Kinetic Energy (T) for Problem 11.9 You need to use $\frac{1}{2}mv_{cm}^2 + \frac{1}{2}I_{cm}\dot{\theta}^2$ or equivalent.

You need to compute $\frac{1}{2}mv_{cm}^2$ using the geometry and/or vectors, then expand to and include terms of size of order θ^2 , $\theta\dot{\theta}$, and $\dot{\theta}^2$, dropping higher order terms.

I hope this helps everyone in the course.