Homework 5 Corrections

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Problem 1

I must have accidentally deleted what I had when adding a sentence below. I should check over my homework in more detail before submitting it. The equation of motion for problem 1 for θ is

$$\frac{d}{dt}(2m_1r^2\dot{\theta}) = 0$$

and is constant.

Problem 2

I drop one of the λ terms for my x_1 term and my f_3 constraint. Furthermore, I stopped short of solving for all of the Λ_i values. I found that my Λ_1 values is 0. I then should of found that

$$\Lambda_2 = \frac{g\sqrt{M^2 - m^2}2b}{2b}$$

and

$$\Lambda_3 = g\sqrt{M^2 - m^2}.$$

Finally, after finding the Λ values I could then solve for the forces. Where

$$Q_{x_2} = 0$$

$$Q_{y_1} = mg$$

$$Q_{y_2} = Mg$$