Students in a first-semester physics course collected this data showing the angular velocity of a rotating “point mass” m and the force Fc required to keep the mass rotating in a circle of radius R. If you plot this data, it *looks* linear (except for that one point at (0,0)) but for theoretical reasons we believe that the equation for centripetal force should be

Fc=mRω2 (1)

* Does this data fit the model for Fc? Plot a graph to support your answer.
* Statistically, the error bars should intersect the curve fit for about 63% of the data points: Are your error bars reasonable?
* The rotating mass had m=200 grams, and the radius of rotation was R=18 cm. Is this consistent with parameters from your curve fit?