## **Circular Motion Problem**

## Name: \_\_\_\_\_\_

Date: \_\_\_\_\_

A block of mass  $m_1=3kg$  is attached to a rope of length  $L_1=8cm$ , which is fixed at one end to a table. The mass moves in a horizontal circle supported by a frictionless table. A second block of mass  $m_2=6kg$  is attached to the first mass by a rope of length  $L_2=10cm$ . The mass also moves in a circle, as shown in *Figure 2.64*. If the masses take 5 seconds to make 2 revolutions, calculate the tension in each rope (try and get a general solution before putting in the numbers, also assume all ropes are massless).



