ADVANCED PHYSICS CLUB
DECEMBER 2, 2018

TODAY'S MEETING

Today we discussed problems from the last homework. Then we reviewed the dynamics of rotational motion. You might find the following web sites useful: http://hyperphysics.phy-astr.gsu.edu/hbase/mi.html#mi We started

DISCUSSED PROBLEMS

1. We discussed in detail the problems 23, 10, 11 from the $F = ma$ contest 2007. You can find those problems here: https://www.aapt.org/Programs/contests/upload/olympiad_2007_fnet_ma.pdf

HOMEWORK

1. Find the angle formed by a dumbbell rotating with angular velocity ω around the vertical axis with the vertical axis (see figure 1). The dumbbell is free to rotate around the horizontal axis.
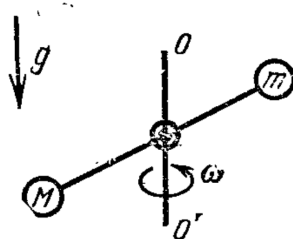

FIGURE 1. An asymmetric dumbbell rotating around the vertical axes.

2. The initial velocity of the dumbbell shown in figure 2 is zero. What is the normal force from the support at this moment?

FIGURE 2. Dumbbell on a support.

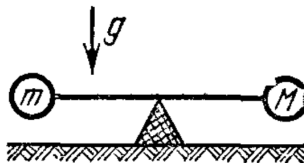### FOR THE NEXT MEETING

Next time we will continue to talk about rotational motion and conservation of angular momentum.