Recitation 6

1. b. Sum of the forces = 0.
c. y0 = 7

2. c. t1 = <8, 0, -4> t2 = < 8, 0, -4 >. Sum = <16. 0, -8 >

d. $\vec{\alpha} = \left\langle \frac{8}{15}, 0, -\frac{4}{15} \right\rangle$

e. $\vec{w} = \left\langle \frac{8}{5}, 0, -\frac{4}{5} \right\rangle$ $\|\vec{w}\| = \frac{\sqrt{80}}{5} \Rightarrow \text{revolutions} = \frac{\frac{\sqrt{80}}{5}}{2\pi} = \frac{2\sqrt{5}}{5\pi}$

$\vec{u} = \left\langle \frac{8}{\sqrt{80}}, 0. - \frac{4}{\sqrt{80}} \right\rangle$

3. No. It has an x component.

$-F_1 \sin 30 + F_2 \sin 45 = 0$

$F_1 \cos 30 + F_2 \cos 45 = 10$