

HW05a

Monday, September 5, 2016 4:54 PM

Elevator:  $N = M(a_y + g)$  (y-axis up)

a)  $N = Mg$     b)  $N = Mg$     c)  $N = M(a+g)$     d)  $N = M(g-a)$

Fish:  $M = \frac{T}{a+g} = 2.5 \text{ kg}$

Medallion:  $\theta = \arctan \frac{a}{g}$

Balloon:  $\frac{M-M'}{\mu} = 1 - \frac{g-a}{g+a/2} = \frac{g+a/2 - g + a}{g+a/2}$   
 $= \frac{3a}{2g+a}$