

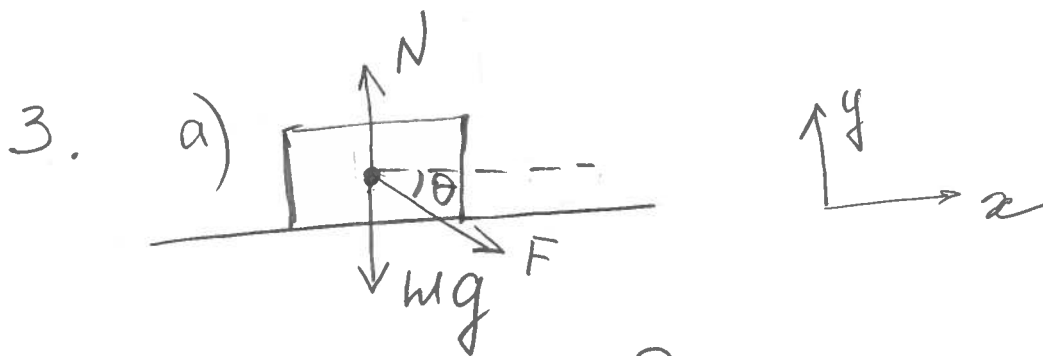
Answers Test 1 2010

1. a) $v(t) = \frac{\beta t^2}{2} - gt$

b) $x(t) = \frac{\beta t^3}{6} - \frac{gt^2}{2} + H$

c) $t^* = \frac{2g}{\beta}$

2. $\vec{F} = (6mc_1 t - k_1) \vec{i} + (2mc_3 - k_2 t) \vec{j}$



b) $a_x = \frac{F \cos \theta}{m}$

c) $a_x = \frac{F \cos \theta - \mu F \sin \theta - \mu mg}{m}$

d) $F = \frac{\mu mg}{\cos \theta - \mu \sin \theta}$