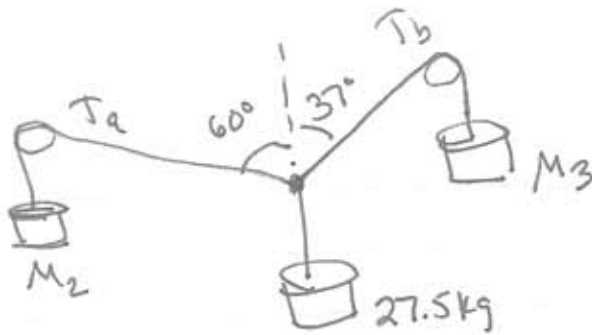


2



x	y
<del><math>T_b \sin 37^\circ</math></del>	<del><math>T_b \cos 37^\circ</math></del>
$.602T_b$	$.799T_b$
$-.866T_a$	$.5T_a$
0	$-269.5$
Sum	0

$$.602T_b - .866T_a = 0$$

$$T_b = 1.438T_a$$

$$.799T_b + .5T_a - 269.5 = 0$$

$$1.149T_a + .5T_a = 269.5$$

$$1.649T_a = 269.5$$

$$\underline{T_a = 163.4\text{ N}}$$

$$T_b = 1.438T_a = 1.438 * 163.4 = \underline{\underline{235.0\text{ N}}}$$

$$M_3 = \frac{T_b}{9.8} = \underline{\underline{24.0\text{ kg}}}$$

$$M_2 = \frac{T_a}{9.8} = \underline{\underline{16.7\text{ kg}}}$$