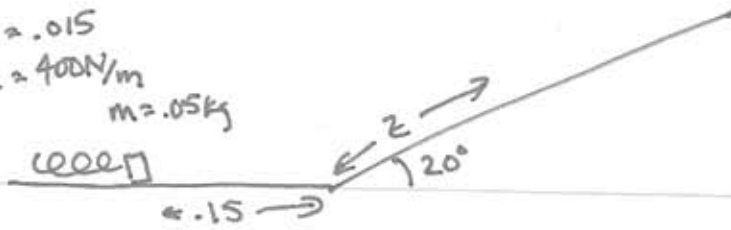


$$x = .015$$

$$k = 400 \text{ N/m}$$

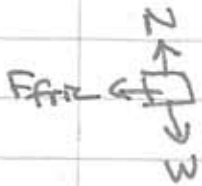
$$m = .05 \text{ kg}$$

4



	kinetic $\frac{1}{2}mv^2$	spring $\frac{1}{2}kx^2$	grav mgh	
compress	0	$\frac{1}{2}(400)(.015)^2$	0	.045
highest	0	0	$(.05)(9.8)z \sin 20^\circ$.167z

$$.045 = .167z \quad z = .269 \text{ m}$$



$$F_{\text{fric}} = \mu N = (.3)(.05)(9.8)$$

$$.147$$

$$W = F \cdot s = (.147)(.15) = .02205$$

energy at bottom of incline $.045 - .02205 =$

$$.02295$$

$$.02295 = .167z \quad z = \underline{\underline{.137 \text{ m}}}$$