

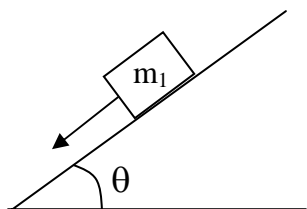
FRICTION, WORK, AND THE INCLINED PLANE

Name: _____ Date: _____ Section: _____

Partner (s): _____

Don't forget to indicate units for all values

Part I: Calculation of μ_s and μ_k .



Static friction:

$\theta_{S1} =$ _____ $\theta_{S2} =$ _____ $\theta_{S3} =$ _____

Average $\theta_s =$ _____ $\mu_s =$ _____

Kinetic friction:

$\theta_{K1} =$ _____ $\theta_{K2} =$ _____ $\theta_{K3} =$ _____ Average $\theta_K =$ _____

$\mu_k =$ _____

Part II: To construct a graph for the theoretical efficiency and experimentally-determined efficiency of the machine as a function of the angle β .

Mass of the block (m_1) = _____

Angle β (degrees)	$\tan \beta$	Theoretical efficiency, e_T	m_2	$\sin \beta$	Experimental efficiency, e_E
1					
10					
20					
30					
40					
50					
60					
70					
80					
89					