Name:_____

Class:_____ Date:_____

Student Sheet 14.1
The Mechanical Advantage of Machines

Directions Use data recorded on Student Sheet 11.2 to calculate ideal and actual mechanical advantage of the inclined planes. Record your results in Table 1 and Table 2. Then graph actual mechanical advantage versus slope of the incline in the blank graph. Remember to give the graph a title.
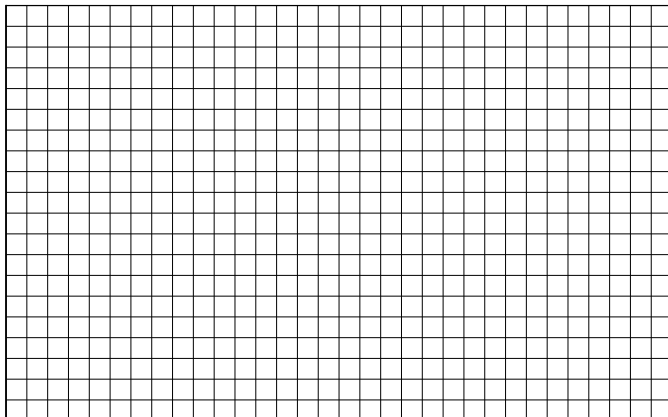
Table 1 Ideal Mechanical Advantage of Inclined Planes

Slope of Incline	Effort Distance	Load Distance	Ideal Mechanical Advantage	My Calculations

Table 2 Actual Mechanical Advantage of Inclined Planes

Slope of Incline	Load Force (sled weight)	Effort Force	Actual Mechanical Advantage	My Calculations

Title _____

(continued)

Student Sheet 14.1 (continued)

Directions Use data recorded on Student Sheet 12.1 to complete Tables 3 and 4, and calculate the ideal and actual mechanical advantage of the pulley systems.

Table 3 Ideal Mechanical Advantage of Pulleys

Pulley Assembly	Effort Distance	Load Distance	Ideal Mechanical Advantage	My Calculations
Single fixed				
Single fixed/ single movable				
Double fixed/ single movable				
Double fixed/ double movable				

Table 4 Actual Mechanical Advantage of Pulleys

Pulley Assembly	Load Force (sled weight)	Effort Force	Actual Mechanical Advantage	My Calculations
Single fixed				
Single fixed/ single movable				
Double fixed/ single movable				
Double fixed/ double movable				