

Purpose: To study the MA, IMA, and efficiency of Pulleys.

Prediction: Make two predictions (not hypothesis) based on the type of machine (lever or pulley) and what the different efficiencies will be (what type of pulley/lever will have a high efficiency... low efficiency)

Procedure:

You will need to figure out your own procedure...

Requirements:

You should do the following tests:

Measure the force needed to hold three different weights in place.

Measure the distance it takes to move a weight 'x' centimeters

You need to do this for:

Fixed (One Pulley attached at the top)

Moveable (One Pulley attached to the mass)

Block and Tackle I (One attached to mass, one attached to post)

Block and Tackle II (One attached to mass, two attached to post)

Suggested tools and materials:

Force probe

Pulleys

Mass set

String

Ring Stand

Posts

½ meter stick

Data Table

Machine: ????????	Force Probe (F_e)	Weight (F_r)	(You) d_e	(Mass) d_r	MA (F_r/F_e)	IMA (d_e/d_r)	Efficiency MA/IMA
Mass 1							
Mass 2							
Mass 3							

Notes:

While there will not be an error analysis, an efficiency of 100% is impossible.