Determining the relationship between hanging masses and the angle of a frictionless plane

Noah Alexiou

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1 Introduction

1.1 Research Question

When the mass of an object on a frictionless plane is altered, and the mass of a hanging object adjusted so equilibrium is achieved, Can this be used to find the angle of the plane?

1.2 Rationale

1.2.1 Hypothesis

1.3 Methodology

1.3.1 Modifications

1.3.2 Materials

- Angle gun
- Frictionless plane
- Brass weights
- Blue tack
- Scale
- Carriage

1.3.3 Method

- Set up slope at the first angle that is to be measured.
- Measure angle of the slope using angle gun
- Place the first mass on the carriage
- Choose a reasonable starting mass for the hanging mass
- Engage the frictionless slope and alter hanging mass by adding or removing brass weights or blue tack until both masses are in equilibrium
- Record masses
- Repeat for each carriage weight
- Perform Calculations

1.3.4 Risk Assessment

2 Results and Evaluation

2.1 Results

2.2 Discussion

3 Conclusion