

Physics Test Description

Test Format: For both parts, you must show all work (with the exception of any multiple choice questions).

Time Limit: 1 hour

Part I: A few simple questions that test whether or not you know stuff (e.g. The coefficient of friction of a block on a ramp is 0.3. If the ramp is tilted 30 degrees from horizontal, what will the force of friction on a 1 kg block be). There might also be multiple choice.

Part II: A few complicated questions that test whether or not you are pretty pro at physics (e.g. an easy problem from this category would be: You have a frictionless ramp tilted an angle of θ from horizontal. It has a constant acceleration of $A\mathbf{i} + 0\mathbf{j}$. Describe the motion of an object on this ramp.)

Possible Topics

- Forces / Work / Energy
- Linear / Rotational Kinematics
- Optics
 - Spherical Lenses / Mirrors
 - Real / Virtual Images
- Simple Harmonic Motion
- **Possibly** stuff on waves or circuits, but most likely only the above.