

Name: _____

Physics 11

Lesson 2.5 – Little “g”

The _____ is the magnitude of the gravity “force field” created by an object. It depends on how _____ the object is and how _____ it is.

The formula for the gravitational field strength of an object is ...



Calculate Earth’s gravitational field strength at its surface:

What are the units of “little g”?

Unsurprisingly, we also call little g the _____.

Little g can make our life easier, because it turns

into



Notable values of little g

Surface of Earth: _____

Surface of Moon: _____

Mass vs. Weight

F_g is also called weight. _____!!!

	Mass	Weight
Metric System Units		
Imperial System Units		

Calculate your mass and weight on Earth and the Moon:

	Mass	Weight
Earth		
Moon		

g-forces

Two types of forces we sometimes talk about are _____ forces and _____ forces. A body force acts on every point within an object. A contact force only acts at the surface where the source of the force is in contact. These two types of forces affect objects very differently.

If a _____ force acts on you, you are left *feeling* _____.

If a _____ force acts on you, it can give you the *sensation* of _____.

g-force is a way of measuring these contact forces by comparing them to the object's _____.

g-forces give us the _____ of weight.

Let's look at the g-forces you might feel in a super-charged elevator...

Example: An average person can handle about 4 g's upwards before blacking out. Astronauts and fighter pilots can handle about 9 g's. What acceleration does each of these correspond to?