Gravitational Potential

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Warm up problems

On your mini-whiteboards, draw

1. The field lines around a large spherical object (like the Moon)
2. The field lines above a large massive plate
3. The field lines between two large massive plates, one above the other
4. The field lines inside a large massive hollow planet

Lesson Objectives

1. To learn how gravitational strength g is defined
2. To do some calculations of g
3. To use g to work out the force on an object

REMINDER: Office hours are week 1 Tuesdays 3.45–5.0 p.m. in room 19.
Next office hours: Tuesday 25 September 2012

Specification Requirement

Gravitational field strength

g as force per unit mass defined by $g = \frac{F}{m}$

Magnitude of g in a radial field given by $g = \frac{GM}{r^2}$

[AQA GCE AS and A Level Specification Physics A, 2009/10 onwards]