

(i) Gravitational force between two bodies is a centripetal force i.e. it acts along the line joining the centers of the two interacting bodies.

(ii) Gravitational force between two bodies is independent of the nature of the intermediate medium.

(iii) The force of gravity between two bodies does not depend on the presence of other bodies.

(iv) It is valid for point objects and spherically symmetric objects.

(v) The magnitude of the force is very small.

physics gravitation notes:- Principle of Superposition of Gravitation

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- Variation of Acceleration Due to Gravity

The value of acceleration due to gravity varies with height (i.e. height), depth, size of the Earth, and the rotation of the Earth about its axis.

(a) Effect of Altitude. As one moves above the surface of the earth, the value of acceleration due to gravity gradually decreases. If the value of acceleration due to gravity at a height h from the surface of the earth is g_h , then

- Intensity of Gravitational Field

The gravitational field intensity of a body at a point in the field is defined as the force experienced by a body of unit mass placed at that point, provided that the presence of the unit mass does not disturb the original gravitational field.