

Spherical Shape of Planets

Source: TH

The spherical shape of planets is largely attributed to the interplay of gravity and geometry.

- **Gravity** is the primary force shaping planets, compelling them into a spherical form due to their massive size.
- A sphere offers the most compact three-dimensional shape, minimising surface area for a given volume.
- While commonly referred to as spherical, planets and stars are actually oblate spheroids, slightly flattened at the poles due to centrifugal force from rotation.
- Rotation creates a centrifugal force, resulting in a slight bulge at the equator, making gravity weaker in this region compared to the poles.
- Gravity tends to shape celestial bodies into spheres, while smaller bodies such as comets
 and asteroids maintain irregular shapes due to stronger electromagnetic forces.

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PDF Reference URL: https://www.drishtiias.com/printpdf/spherical-shape-of-planets