

- 12** A space probe is used to measure the gravitational field strength g of a planet at a distance r from its centre.

A graph of g against $\frac{1}{r^2}$ for this planet produces a straight line graph through the origin.

Which quantity can be determined from the gradient of the straight line graph?

- A** the density of the planet
- B** the mass of the planet
- C** the radius of the planet
- D** the volume of the planet