

- 8 A uniform spherical planet of mass 1.30×10^{22} kg has a diameter of 2380 km. A space probe of mass 5500 kg is launched from the surface to a height of 240 km.

What is the increase in gravitational potential energy of the space probe?

- A 1.84×10^8 J
- B 6.73×10^8 J
- C 3.34×10^9 J
- D 4.01×10^9 J