

17 A satellite orbits a planet at a distance r from its centre. Its gravitational potential energy is -3.2 MJ .

Another identical satellite orbits the planet at a distance $2r$ from its centre.

What is the sum of the kinetic energy and the gravitational potential energy of this second satellite?

A -0.40 MJ

B -0.80 MJ

C -1.6 MJ

D -6.4 MJ

18 A body moves with simple harmonic motion and makes n complete oscillations in one second.