

13 A stone of mass m attached to a string is whirled in a vertical circle of radius r . At the top of the circle, the tension in the string is four times the stone's weight. At this point the stone's speed is

A \sqrt{rg}

B $\sqrt{3rg}$

C $\sqrt{4rg}$

D $\sqrt{5rg}$

14 Satellites A and B of masses m and $2m$ are placed in geostationary orbits of radii r_1 and r_2 about