

16 A pendulum consists of a small object on the end of a light string.

When the object is set in motion it oscillates with simple harmonic motion with negligible damping.

The maximum potential energy of the object at maximum displacement x is E .

The pendulum is stopped and then started again.

Now the maximum potential energy of the object is reduced by $\frac{E}{4}$.

What is the change in the amplitude of the oscillation?

A 0.134 x

B 0.250 x

C 0.500 x

D 0.866 x

