



A mass suspended from a spring is oscillating up and down. Consider two possibilities:

(i) at some point during the oscillation the mass has $v = 0$ but $a \neq 0$

(ii) at some point during the oscillation the mass has $v = 0$ and $a = 0$.

1. Both occur sometime during the oscillation.
2. Neither occurs during the oscillation.
3. Only (i) occurs.
4. Only (ii) occurs.

An object hangs motionless from a spring. When the object is pulled down, the sum of the elastic potential energy of the spring and the gravitational potential energy of the object and Earth



1. increases
2. decreases
3. remains the same.