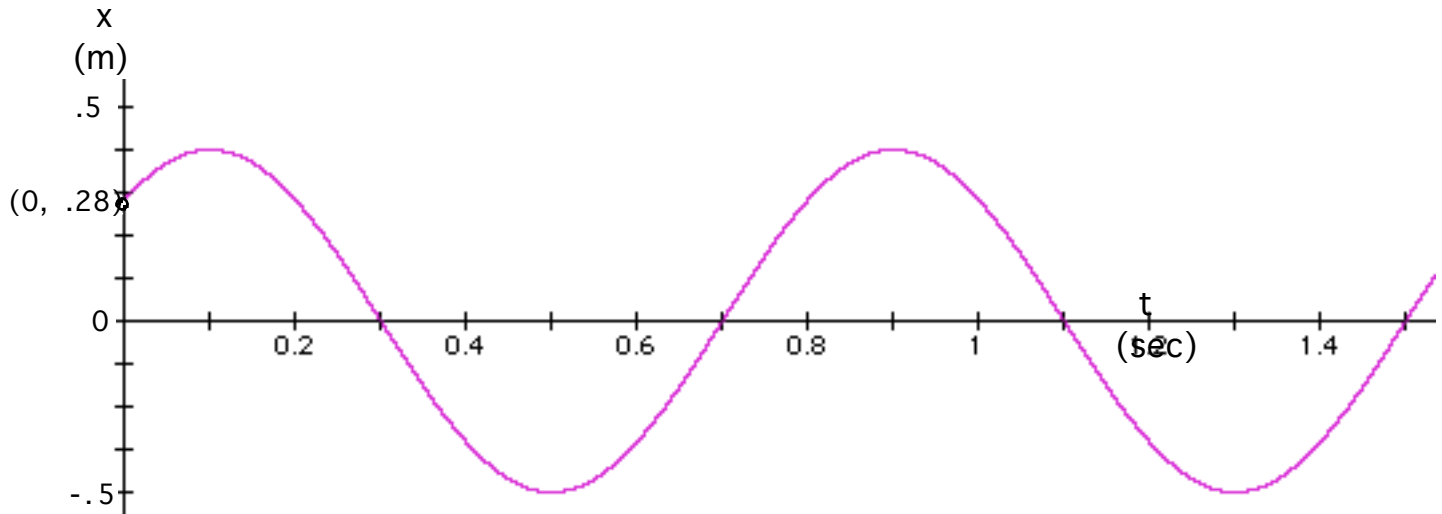


ATTACHMENT1

Showing a cosine curve representing $x(t)$ for a platform of mass M executing SHM.



Physics statements:

A. A general equation for $x(t)$ for SHM is: (1) $x = X_m \cos(\omega t + Q)$ In this equation, X_m is the amplitude, ω is the angular frequency, and Q is the initial phase angle in radians.

B. The velocity and the acceleration are derivatives $v = dx/dt$ and $a = dv/dt$.

C. The period T of a mass M on a spring with constant k is given by: $T = 2\pi \sqrt{\frac{M}{k}}$

D. Since the angle in (1) changes by 2π radians in one period, the angular frequency ω is related to the period by: $\omega = \frac{2\pi}{T}$