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Similarly

$$\begin{aligned}\dot{x} &= -\sqrt{\lambda} a \sin \sqrt{\lambda} t \\ &= -\sqrt{\lambda} a \sin \sqrt{\lambda} \left( t + n \frac{2\pi}{\sqrt{\lambda}} \right)\end{aligned}$$

$\Rightarrow$  The motion will repeat after every interval  $\frac{2\pi}{\sqrt{\lambda}}$

(# i.e. the position and the vel. of the particle will be the same)

$\Rightarrow$

Time period of the motion

$$T = \frac{2\pi}{\sqrt{\lambda}}$$

Frequency

$$\begin{aligned}\nu &= \frac{1}{T} \\ &= \frac{\sqrt{\lambda}}{2\pi}\end{aligned}$$