



Consider the above mass-spring system, where the mass oscillates according to the SHM  $x = A \cos(\omega t + \phi)$ .

Locate the point on the circle which corresponds to the top figure.

A)  $A_1$ .

B)  $A_2$ .

For the top figure, so far as the location of the mass is concerned, both  $A_1$  and  $A_2$  are possible.

Since the velocity is positive, it limits the point  $A_2$  to be the correct choice.

Answer **B** .

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