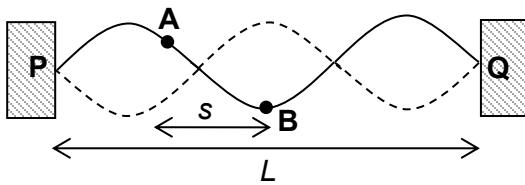


- 17 A guitar string of length  $L$  is stretched between two fixed points **P** and **Q** and made to vibrate transversely as shown below.



Two points **A** and **B** on the string are separated by a distance  $s$ . The maximum kinetic energies of points **A** and **B** are  $K_A$  and  $K_B$  respectively.

Which of the following gives the correct phase difference and relationship between maximum kinetic energies of the points?

	phase difference	maximum kinetic energy
<b>A</b>	$\frac{3s}{2L} \times 360^\circ$	$K_A < K_B$
<b>B</b>	$\frac{3s}{2L} \times 360^\circ$	same
<b>C</b>	$180^\circ$	$K_A < K_B$
<b>D</b>	$180^\circ$	same