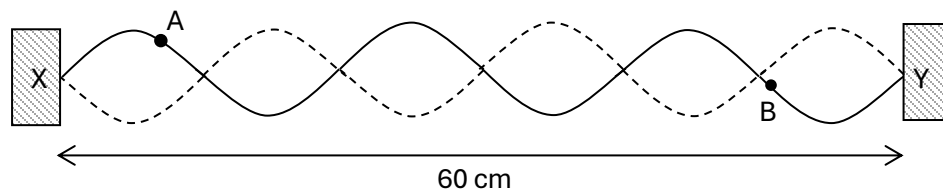


**19** A string that is of length 60 cm is stretched between two fixed points X and Y, and made to vibrate transversely as shown in the figure.



Two particles A and B on the string are separated by a distance 42 cm as shown the diagram above. The maximum kinetic energies of A and B are  $K_A$  and  $K_B$  respectively.

Which of the following gives the correct phase difference and maximum kinetic energies of the particles?

	phase difference	maximum kinetic energy
<b>A</b>	$0^\circ$	$K_A < K_B$
<b>B</b>	$36^\circ$	$K_B < K_A$
<b>C</b>	$180^\circ$	$K_B < K_A$
<b>D</b>	$756^\circ$	$K_A < K_B$

