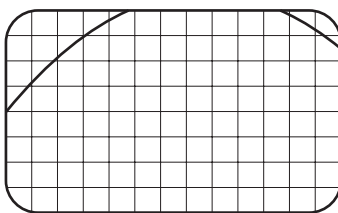


- 20** In an experiment, a student uses a microphone and a cathode-ray oscilloscope (CRO) to analyse a sound wave. The diagram shows the trace on the screen of the CRO.

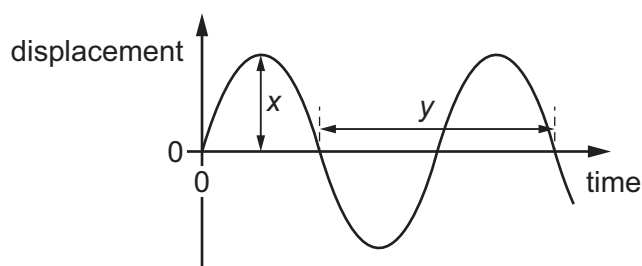


The student is expecting a sinusoidal waveform to be shown on the screen.

Which changes should the student make to the time-base and the  $y$ -gain of the CRO so that the screen shows a continuous trace for one complete cycle of the waveform?

	time-base	$y$ -gain
<b>A</b>	decrease	decrease
<b>B</b>	decrease	increase
<b>C</b>	increase	decrease
<b>D</b>	increase	increase

- 21** The graph shows the variation with time of the displacement of a particle in a progressive wave.



Two measurements,  $x$  and  $y$ , are labelled on the graph.

What do  $x$  and  $y$  represent?

	$x$	$y$
<b>A</b>	amplitude	period
<b>B</b>	frequency	period
<b>C</b>	amplitude	wavelength
<b>D</b>	frequency	wavelength