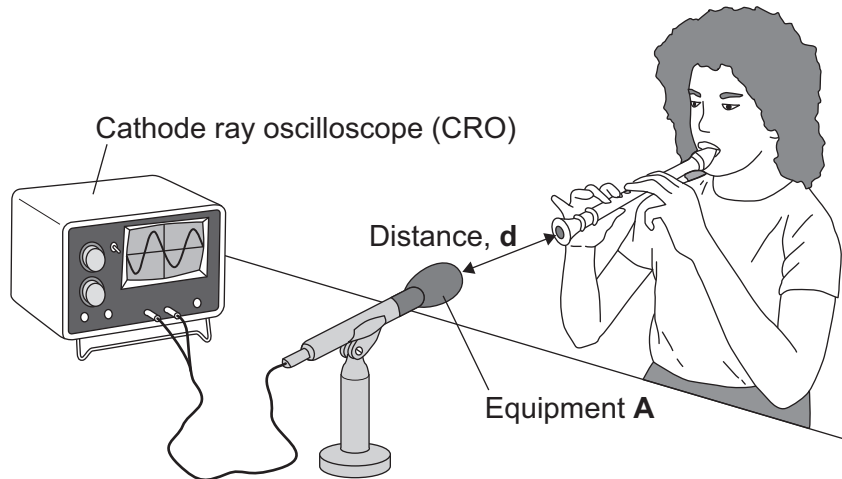


Answer **all** questions in the spaces provided.

- 1** A group of students investigates sound waves.
The diagram shows part of their investigation.



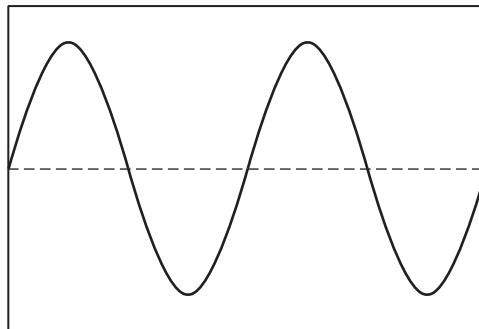
- 1 (a)** Identify the equipment labelled **A**.

.....
(1 mark)

- 1 (b)** The student plays the same note in the same way at different distances from equipment **A**.

Another student records the amplitude of the wave shown on the cathode ray oscilloscope (CRO).

- 1 (b) (i)** Label this wave to show its amplitude.



(1 mark)

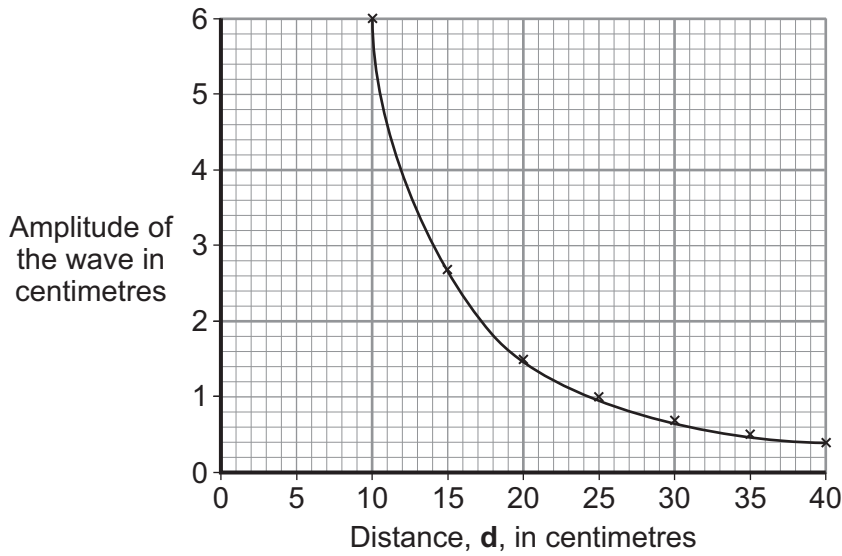
- 1 (b) (ii)** Complete the sentence.

Increasing the amplitude of a sound wave will increase the
of the sound.

(1 mark)



1 (c) The graph shows the students' average results from several sets of measurements.



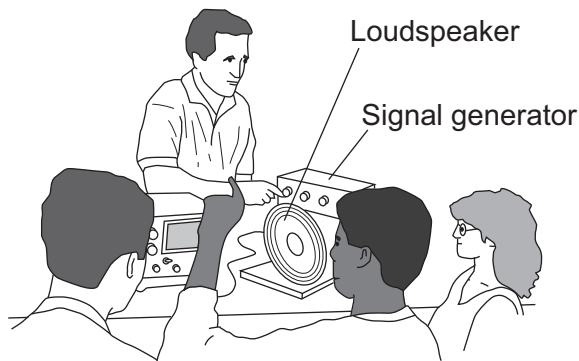
Use the graph to find the distance, *d*, in centimetres, at which the average amplitude is likely to be 2 centimetres.

Distance = cm.
(1 mark)

1 (d) Write a conclusion for this investigation.

.....
.....
(1 mark)

1 (e) A physics teacher uses a signal generator and a loudspeaker to demonstrate the range of hearing of a group of students.



What is the range of frequencies most humans can hear?

Most humans can hear from Hz to Hz.
(2 marks)

