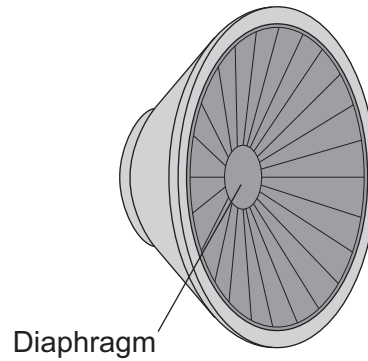


- 2 The diaphragm of a loudspeaker moves in and out.

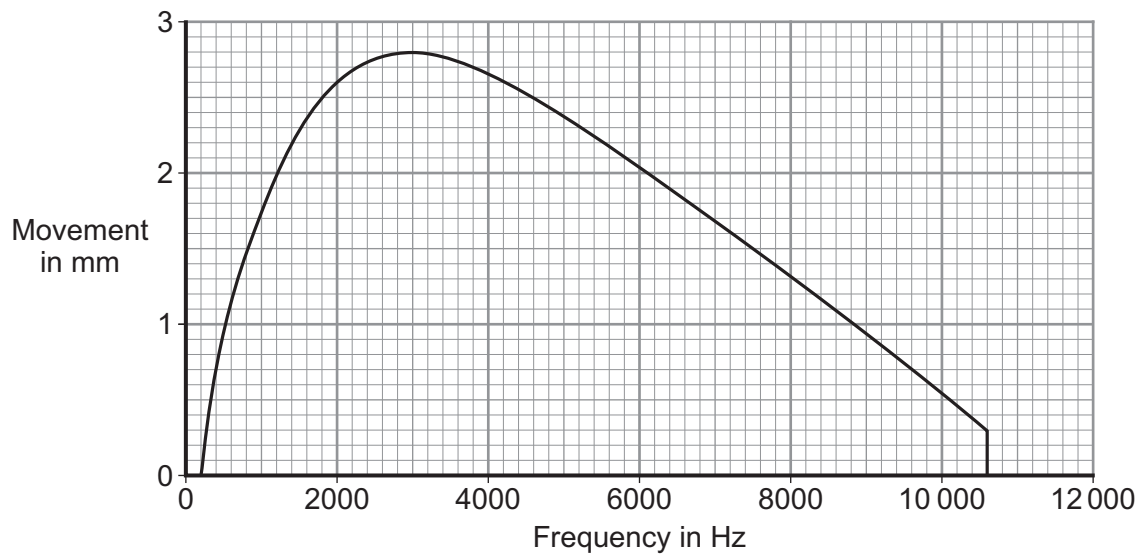


A team of scientists investigated loudspeakers.

The scientists measured the size of the movement of the diaphragm for signals of different frequencies.

They kept all the other variables constant.

The graph shows the average results for a large number of tests on one of the loudspeakers.



- 2 (a) What is the frequency of the highest pitched sound which this loudspeaker produces?

Frequency = Hz
(1 mark)



2 (b) The greater the movement of the diaphragm, the greater the amplitude of the sound produced.

What is the frequency of the loudest sound which this loudspeaker produces?

Show clearly on the graph how you get to your answer and then complete this answer space.

Frequency = Hz
(2 marks)

2 (c) Can this loudspeaker produce the full range of sound which most people can hear?

Put a tick (✓) in the box next to your answer.

Yes

No

Explain the reason for your answer.

.....
.....
.....
.....

(2 marks)

2 (d) Use **one** word to complete the sentence.

Repeating tests a large number of times and taking the average of the results improves the

(1 mark)

2 (e) Why did the scientists keep all the other variables constant?

.....
.....

(1 mark)

7

Turn over ►

