

<b>Name</b>			
<b>Class</b>		<b>Term</b>	2
<b>Year</b>		<b>Quiz Number:</b>	Quiz 1
		<b>Total Marks</b>	/12

- 1 Sound travels as sound waves.

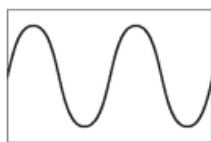
Complete these sentences using the best words.

2

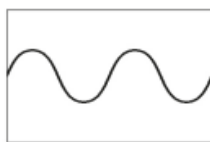
As the loudness of a sound increases, the amplitude of the sound wave increases.

As the pitch of a sound increases, the frequency of the sound wave increases.

- 2 The diagrams show the waveforms of four sounds, A–D, as displayed on an oscilloscope screen.



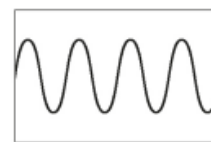
A



B



C



D

Complete the sentence using the correct letters.

2

The quietest sound is B and the highest pitch sound is D.

In a reaction between nitric acid and calcium carbonate, the mass of the reactants is 150 g.

- a What will be the mass of the products?

[1]

150 g

- b If this reaction is carried out in an unsealed flask that has been placed on a top pan balance, why might the mass of the products not be what you expect?

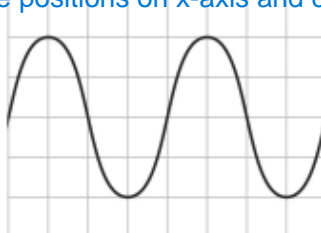
[1]

One of the products is a gas so, if it is allowed to escape, the total mass as measured by the top pan balance will not include the mass of the gas so the mass will be lower than expected

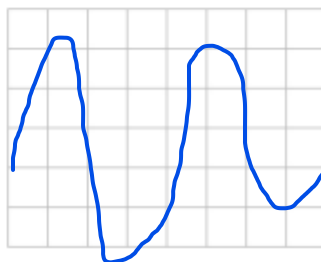
3 When two sound waves meet, they can reinforce each other or cancel each other.

a The diagram shows the waveform of one sound wave.

Wave peaks and troughs in the same positions on x-axis and crosses mid-point at same positions (any amplitude).



On the grid below, draw the waveform of a wave that will reinforce this sound.



2

b A sound wave, P, can be heard clearly. Wave P has constant frequency and constant amplitude. Another sound wave, R, cancels P completely.

i Describe what is heard when P and R cancel.

nothing / quiet / silence

ii State how wave P must compare with wave R, if they cancel completely.

Amplitude of P compared to R is same

Frequency of P compared to R is same

3

4- 4 grams of hydrogen reacts with some oxygen to make 36 grams of water. Figure out how much oxygen must have been used by applying the law of conservation of mass?

32 g

.....(2)