

The **amplitude** is a measure of how tall the wave is.

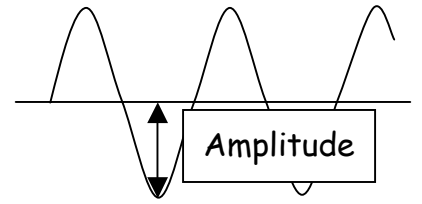
The larger the amplitude the louder the sound.

a 

1. Which wave has the higher amplitude (a or b)? ____

b 

2. Which wave is from the loudest sound? ____



The **frequency** equals the number of vibrations in one second.

The closer the waves are together, the higher the frequency.

The higher the frequency, the higher the pitch of the sound.

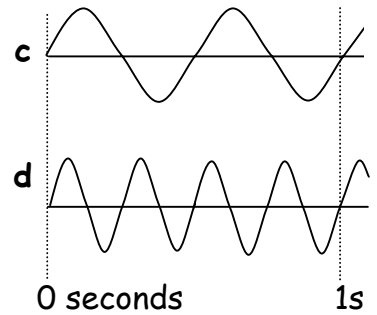
3. Which wave has the most vibrations in 1 second (c or d)? ____

4. Which wave has the highest frequency? ____

5. Which wave is from the highest pitch sound? ____

6. Are the amplitudes of the waves different? ____

7. Are the volumes of the sounds different? ____



e 

8. Which wave has the higher amplitude (e or f)? ____

f 

9. Which wave is from the loudest sound? ____

10. Which wave has vibrations that are closest together? ____

11. Which wave has the highest frequency? ____

12. Which wave is from the highest pitch sound? ____

Copy wave 'g' carefully into your book.

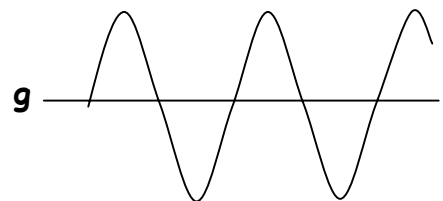
Make sure the amplitude and wavelength are the same as those in wave g.

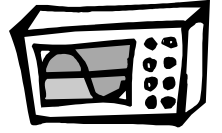
13. Draw a wave below your copy of wave g, which has a much higher amplitude, but the same frequency. Label it 'h'.


How would this sound compare to the sound that produced wave 'g'?

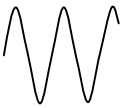
14. Draw a wave to the right of your copy of wave g, which has the same amplitude, but a much higher frequency. Label it 'i'.

How would this sound compare to the sound that produced wave 'g'?





a  1. Which wave has the higher amplitude (a or b)? **b**

b  2. Which wave is from the loudest sound? **b**

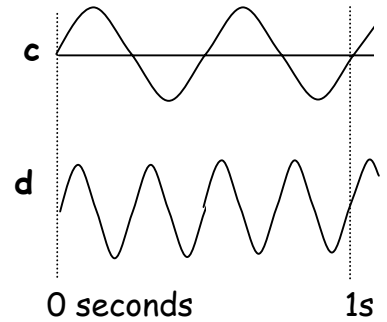
3. Which wave has the most vibrations in 1 second (c or d)? **d**

4. Which wave has the highest frequency? **d**

5. Which wave is from the highest pitch sound? **d**

6. Are the amplitudes of the waves different? **no**

7. Are the volumes of the sounds different? **no**



e 

8. Which wave has the higher amplitude (e or f)? **f**

f 

9. Which wave is from the loudest sound? **f**

10. Which wave has vibrations that are closest together? **e**

11. Which wave has the highest frequency? **e**

12. Which wave is from the highest pitch sound? **e**

13. Draw a wave below your copy of wave g, which has a much higher amplitude, but the same frequency. Label it 'h'.

How would this sound compare to the sound that produced wave 'g'?

Louder, but same pitch

14. Draw a wave to the right of your copy of wave g, which has the same amplitude, but a much higher frequency. Label it 'i'.

How would this sound compare to the sound that produced wave 'g'?

Same volume, but higher pitch

