

## "Basics of Sound" - English Questions

1 What is sound? Tell it, without mention the less applicable energy content of the sound field - we don't use this in audio.

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**2**. A pure sound wave is "sin x" as particle air vibration. How is the formula for the vibration at three times the amplitude?

3. What is the equation for the fundamental wave "sin x" with double the pitch?

**4.** The sound pressure amplitude is measured as the force *F* acting on the area *A*. How is this sound field size called?

5. What size is this unit?

**6.** The fluctuations generated by the sound wave are adequate stimuli for excitation of the auditory organ. Which fluctuations are effective on the ears?

7. What size determines the sound volume (loudness)?

8. What size determines the pitch of the listening?

9. What sound level in dBSPL must a low sine wave of 20 Hz have in our ears, to be perceived?

**10.** How much N/m<sup>2</sup> is corresponding to this level in dBSPL? See # **9**.

11. How is the oscillation of air particles around their rest position called?

12. What is the unit of this velocity of air particles?

13. What size of sound is directly converted by microphones into an electrical variable?