Questions of the "tonmeister test"



1. In English the word "hall" does not mean reverberation or reverb, like in Germany. It means?

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2. Ten equal loud playing violoncellos are producing together a sound level of 95 dB. Which sound level is one violoncello producing?

Help: "Addition of electrical and acoustical levels" http://www.sengpielaudio.com/calculator-spl.htm

3. How much is the amplification factor of the microphone preamplifier, with 26 dB of amplification?

The amplification factor, also called gain, of the preamplifier is:

4. Needed is the input signal V_{1n} (input voltage V_{1}) of the amplifier of question 3, if the amplification is given as 26 dB and the output voltage V_{2} is given as $V_{out} = 200 \text{ mV}$.

The input voltage of the amplifier is also the output voltage of the microphone:

$$V_{\text{out}}$$
 (mic) = V_{in} (amp) =

- 5. In theory we can have at an interface three possibilities of matching of the impedances. How are their names?
- a) $Z_{\text{in}} \ll Z_{\text{out}}$:
- b) $Z_{in} >> Z_{out}$:
- c) $Z_{in} = Z_{out}$:

 Z_{in} (Z_1) is the load impedance, the external impedance, and also the input impedance. Z_{out} (Z_2) is the source impedance, the internal impedance, and also the output impedance.

See voltage bridging and matching: http://www.sengpielaudio.com/calculator-voltagebridging.htm

- 6. What was the name for the frequency unit hertz (Hz) before the year 1960 in English speaking countries?
- 7. What auxiliary measuring ratio unit besides the decibel is used in electrical engineering and acoustics? It is also defined in the standards DIN, IEC und ISO.

See: http://www.sengpielaudio.com/calculator-neper.htm

- 8. Which types of microphones did Volker Straus use for his "Straus packet"?
- **9.** How were the two microphones of the Straus packet connected together going to one microphone channel? Accomplish this diagram.

