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## Questions of the "tonmeister test"

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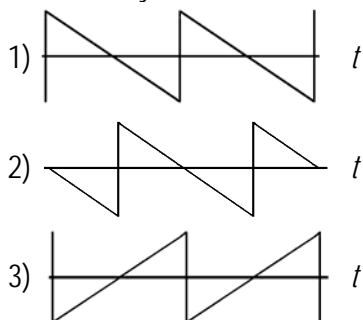
UdK Berlin  
Sengpiel  
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F + A

1. You got a sine tone with the frequency of  $f = 1000$  Hz. Which time gives one full cycle  $T$ . That is one period?
2. You want to make out of the above frequency  $f = 1000$  Hz another sine tone, but the phase should be shifted  $180^\circ$  ( $\pi$ ) to the original tone. Which time delay  $\Delta t$  you have to use?
3. Draw a schematic of a phase shifter with an RC pad, which compared with the original sine wave produces another wave, whose phase  $\varphi$  can be moved between  $0^\circ$  and  $180^\circ$ .  
A phase shifter is an electronic circuit, which can move the phase  $\varphi$  of an electrical vibration. This shift is given in degrees or as part of the full circle.

3. a) Why do we put for a recording a small AB microphone system in front of a soloist who is in front of an orchestra?

b) Where do we position the panpots?

4. At No. 1 you find a saw tooth output signal of a synthesizer.



- a) Which curve do you get from this output signal 1 when you use the switch at the mixer which shows the following sign  $\ominus$ ? b) What does this sign mean?
- c) What shows curve 2?
- d) What shows curve 3?

5. At a recording of three grand pianos some of the students had the idea to put at every piano at the curve an ORTF system. And then we have to add only a room signal of all instruments. How can you bring the three stereo signals of the ORTF systems to the stereo master of the mixer, so that the left piano is 1/3 left of the loudspeaker basis, the center piano is 1/3 in the center, and the right piano is 1/3 right of the loudspeaker ?