

17. Which statement is **not** correct?

- a) We can reproduce *any* periodic wave by adding sine functions with different amplitudes and phases
- b) The Fourier spectrum of a violin playing a 500 Hz tone has peaks at the 1000 Hz and 1500 Hz
- c) The Fourier spectrum of a violin playing a 500 Hz tone has peaks at the 600 Hz and 700 Hz, 800 Hz, ...
- d) Sounds with similar wave shapes sound similar
- e) Sounds with similar Fourier spectra sound similar

18. What is the wavelength of the highest (in pitch) sound one can hear ?

- a) approximately 1.7 cm
- b) approximately 17 m
- c) approximately 17 Km
- d) approximately 1.7 Hz
- e) approximately 5 seconds

19. Which statement is correct ?

- a) Higher frequency corresponds to higher pitch
- b) Higher frequency corresponds to louder sound
- c) Longer periods correspond to longer sound
- d) Longer periods correspond to louder sound
- e) Smaller amplitude correspond to louder sound

20. Which of the following increase the sound speed in a gas?

- a) lower pressure
- b) higher frequency
- c) larger amplitude
- d) heavier molecules
- e) higher temperature