AP Physics 1

Sound Review Questions

MC

1. B
2. C

5. D

10. A

11. C

12. C

14. B

Conceptual Questions

1. Higher, then lower

3. Yes – speed of sound varies with temperature. It could be 330 m/s on a cold day and 350 m/s on a warm day.

4. Light gets to us almost instantaneously. Sound travels at 340 m/s or so – so 1 sec delay means it’s 340 m away (x = vt)

5. Change frequency of a voice (often randomly) to distort how they sound (pitch)

6. Because of forced vibration – makes guitar vibrate. More vibrations means more volume.

7. a. Yes there is a shift – moving observer (catching frequency more).

b. Yes shift – both observer and source of reflection moving

9. Yes standing wave. Ones with antinode in middle (1, 3, 5)

10. Means L increases. f = nv/4L so f decreases, gets lower