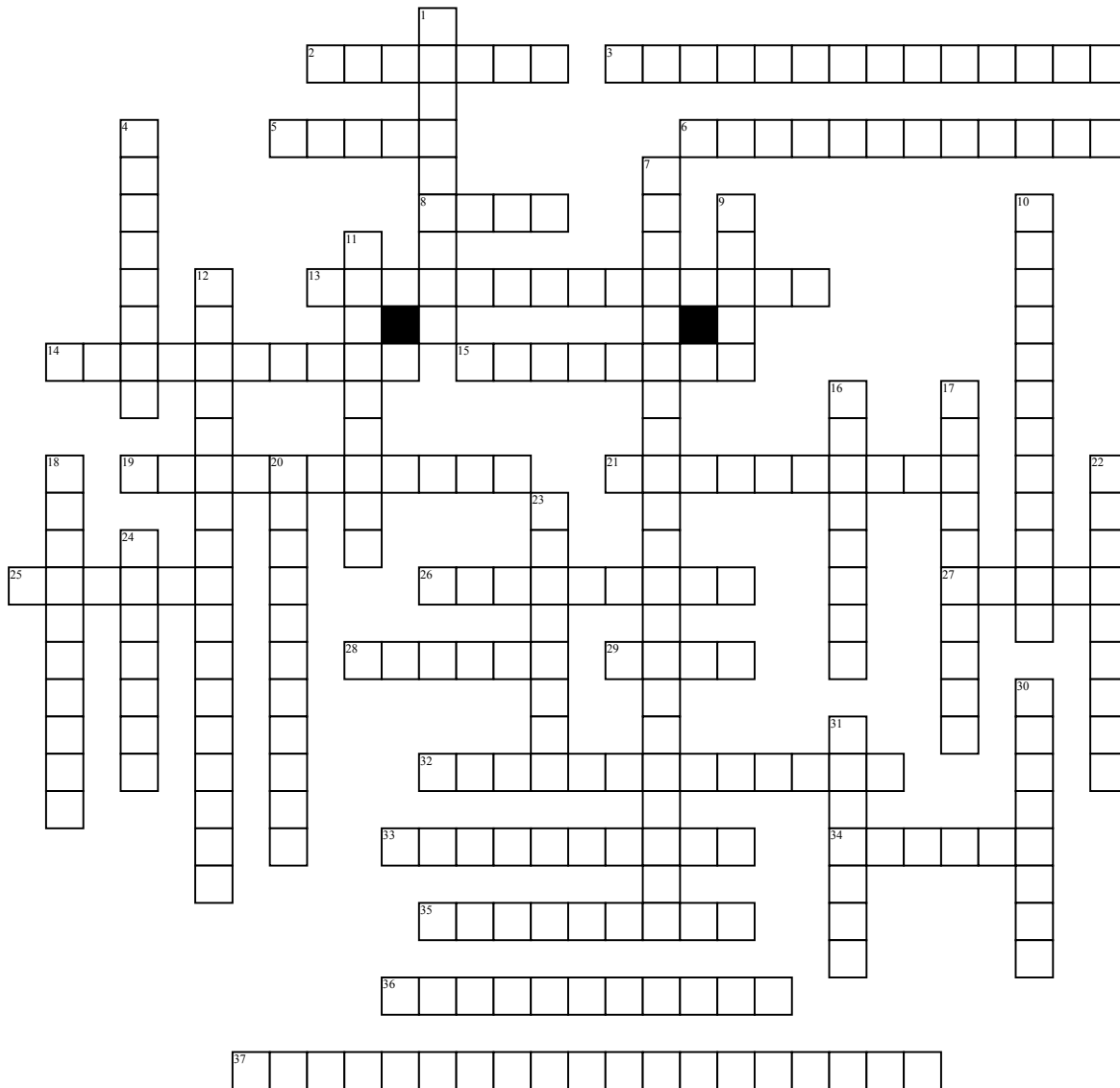


Name: _____

Date: _____

Acoustical Physics



Across

2. Doppler _____ assess the characteristics of all Doppler modalities.
3. What is the gradual spread of the ultrasound beam in the far field known as?
5. What is the only display mode that provides information regarding reflector motion with respect to time? (no dash)
6. This is a two-part process that changes the electrical signals within the receiver into a form more suitable for display on a monitor.
8. What is the most relevant intensity with respect to tissue heating?
13. This is the manipulation of image data after storage in the scan converter.
14. This zone is also called the far zone.
15. What type of resolution will improve when frame rate increases?
19. This transducer has the same distance between the scan lines in both the near and far fields.
21. What transducer contains a single, disc-shaped active element that is physically moved?
25. _____ image artifact is created when sound reflects off a strong reflector and is redirected toward a second structure.
26. How are frequency and speed related?

27. This is a set of rules, or protocols, that allows imaging systems to share information on a network.
28. What describes a short burst of acoustic energy?
29. This artifact appears when sound energy is transmitted in a direction other than along the beam's main axis.
32. These appear on the display as multiple, equally spaced echoes.
33. What is a change in direction of wave propagation when traveling from one medium to another?
34. When you adjust the output power control, you affect what system component?
35. The spectrum of frequencies emitted by a pulsed-wave transducer is known as _____.
36. What happens when a PZT crystal's temperature is elevated above the Curie point?
37. In linear phased arrays, what is the firing pattern that focuses a sound beam?

Down

1. What is the concentration of energy in a sound beam?
4. This sound reflector is most dependent on the angle of incidence.
7. Pulse repetition frequency is the reciprocal of _____.
9. This type of resolution is parallel to the sound beam's main axis.

10. Two waves are traveling in a medium and arrive at a location at the same time. What event takes place?
11. These appear as a solid hyperechoic line directed downward when seen on a display.
12. Harmonic frequency sound waves arise from _____.
16. The phenomenon where high velocities appear in the opposite direction is called _____.
17. What type of transducer creates a short duration electrical spike that travels through the wire and strikes the PZT crystal?
18. During this, the diaphragm moves upward, increasing pressure in the chest.
20. What is the decrease in intensity, power, and amplitude as sound travels?
22. This parameter is the ultrasound system's ability to create numerous frames each second.
23. Bernoulli's Principle describes the relationship between velocity and _____ in a moving fluid.
24. This zone is also called the near zone.
30. What determines the range of brilliancies within the displayed image?
31. The _____ effect is presented as a frequency shift when the source and the receiver are in motion relative to each other.