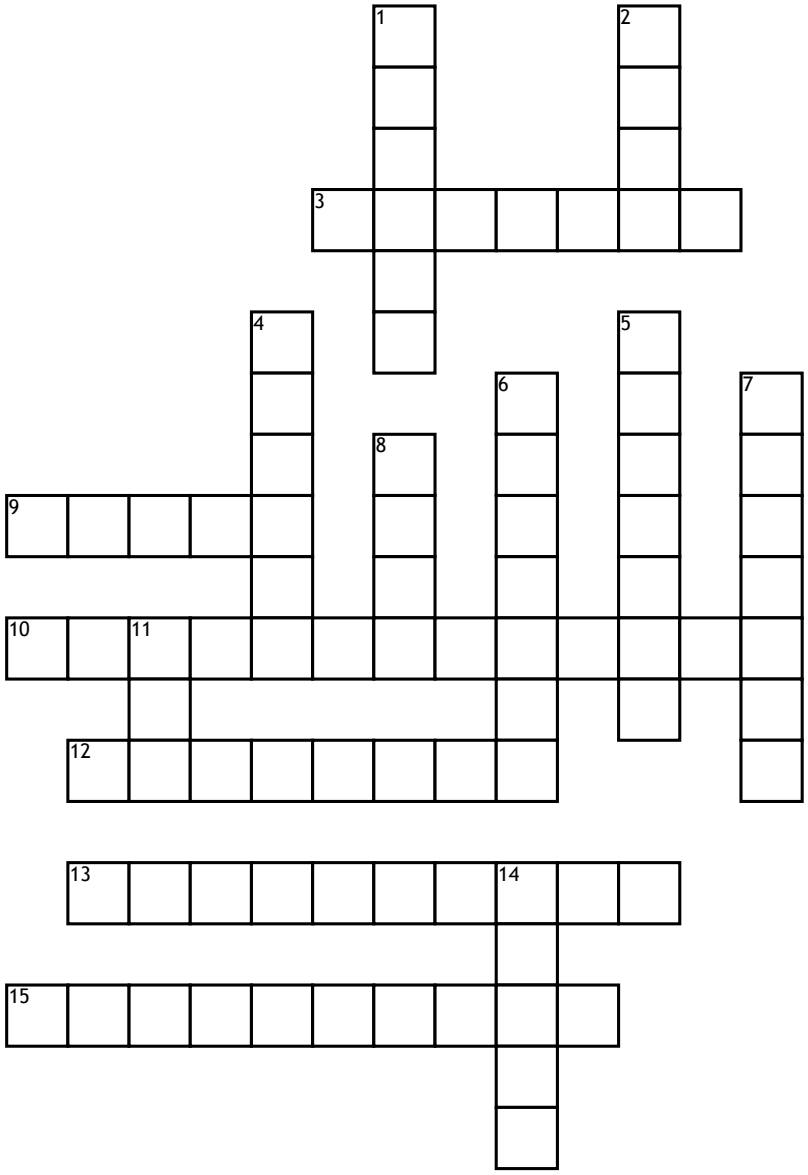
Name: _____

Sound Beams



Across

3. Region or zone in between the transducer and the focus. ____ zone

9. Distance from the transducer face to the focus. Also called Focal length or near zone length. Focal _____

10. The overall hourglass shape of a sound beam is the result of constructuve and destructive _____

12. Sound beams _____ in the near zone

13. Region or zone deeper than the focus, beyond the near field. _____ zone

15. Determined by the tranducer diameter and frequency. Sound beam _____

Down

1. _____ beams create better images

2. Region surrounding the focus where the beam is sort of narrow, picture is relatively good. Focal _____

4. _____ frequency produces beams that diverge less in the far field

5. When produced by a tiny source, with a size near the wavelength of the sound, waves will diverge in this shape as they propagate. _____ wavelet

6. Sound beams _____ in the far zone

7. this principle describes why the sound beam has an overall shape of an hourglass

8. Beam diameter is ____ of transudcer diameter at the end of the near zone

11. Beam diameter is the same as transducer aperture at ____ near zone lengths

14. Location where the beam reaches its minimum diameter