

Lesson 5A ver 2

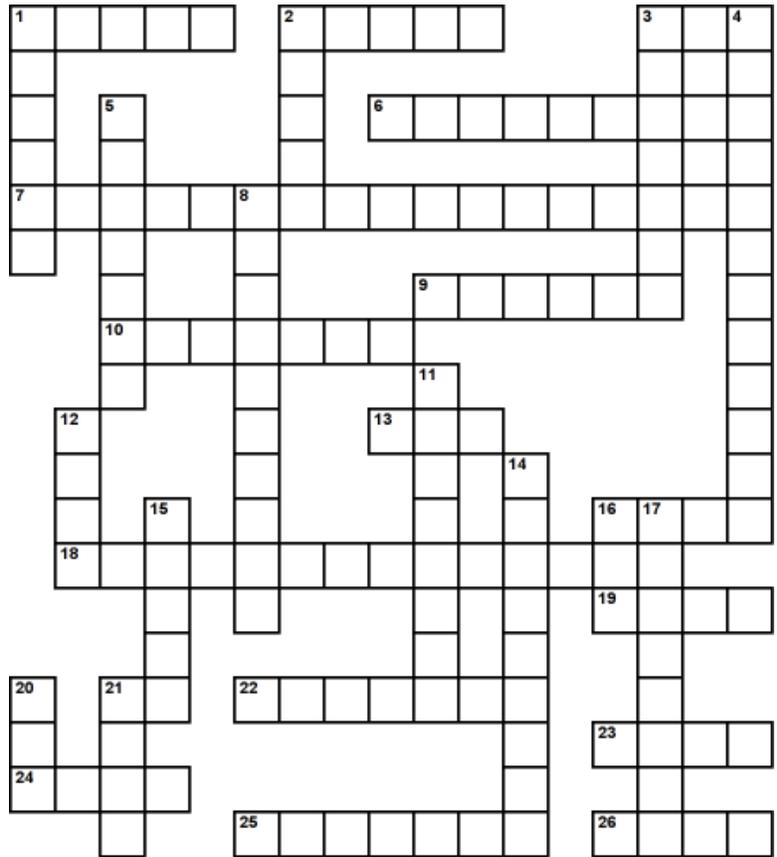
6Feb2015

Across

1. A $5/8$ wavelength antenna for VHF or UHF mobile service offers a _____ angle of radiation and more gain than a $1/4$ wavelength antenna
2. An antenna _____ matches the antenna system impedance to the transceiver's output impedance
3. A loose connection in a feedline might cause erratic changes in _____ readings
6. A _____ consists of a non-inductive resistor and a heat sink (5,4)
7. SWR (8,4,5)
9. Signals from a "rubber duck" antenna inside your car be _____ than when it is outside
10. VHF signals received via _____ reflection exhibit rapid fluctuations of strength and often sound distorted
13. It important to have a _____ SWR in an antenna system to allow efficient power transfer and reduce losses
16. _____ of an antenna is the increase in signal strength in a specified direction when compared to a reference antenna
18. Signals could be weaker if the antennas of a VHF or UHF radio link are not using the same _____
19. An antenna that concentrates signals in one directions
21. The approximate length, in inches, of a quarter-wavelength vertical antenna for 146 MHz
22. What band is best suited to communicating via meteor scatter (1,6)
23. An electrical difference between the smaller RG-58 and larger RG-8 coaxial cable is RG-8 cable has _____ loss at a given frequency
24. _____ is the approximate SWR value for the protection circuits to reduce transmitter power (1,2,1)
25. _____ coaxial cable requires special techniques to prevent water absorption when compared to foam or solid dielectric types (3,4)
26. _____ SWR means an impedance mismatch (1,2,1)

Down

1. Air-insulated hard line has the _____ loss at VHF and UHF
2. The connector which is most suitable for frequencies above 400 MHz (4,1)
3. The _____ wavelength allows UHF signal to more easily penetrate the structure of buildings than VHF signals
4. _____ is the distance that radio signals between two points are blocked by the curvature of the Earth (5,7)
5. _____ cable is used more often because it is easy to use and requires few special installation considerations
8. The _____ enables the propagation of radio signals around the world
11. _____ contamination is the most common cause for failure of coaxial cables
12. The polarization of the original signal is randomized by _____ reflections between the Earth and the ionosphere



14. The strongest radiation from a half-wave dipole is _____ to the antenna
15. The coax connector commonly used at HF frequencies (2-3)
17. If your stations' 2 meter signals were strong, but now they are weak, try moving _____ (1,3,4)
20. The approximate length, in inches, of a 6 meter $1/2$ -wavelength wire dipole antenna
21. _____ is the SWR meter reading for a perfect impedance match between the antenna and the feedline (1,2,1)