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Answer the following questions:

1. Find out using spectrum charts the basic communication applications in the:
  - MF range
  - HF range
  - VHF range
  - UHF range
  - SHF
2. What are the frequency bands used for AM and FM radio transmission?
3. What is the frequency band used for TV channels 2-6?
4. What are the frequency bands used for Digital Video Broadcasting (DVB) system?
5. What are the two different types of twisted pair wires that are in use?
6. Why are the wires twisted?
7. Name the types of twisted pair wires that could be used in high speed LANs such as the Gigabit Ethernet LAN.
8. Compare the different types of copper wires to optical fiber cables.
9. Give three examples of wireless communications systems, and show the pros and cons of each system.
10. Calculate the round trip delay in case of geo satellite used for communications.
11. What are the main advantages and disadvantages of satellite communications systems?