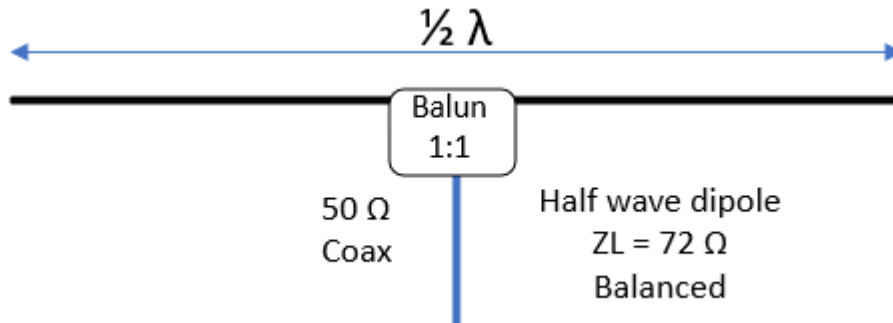


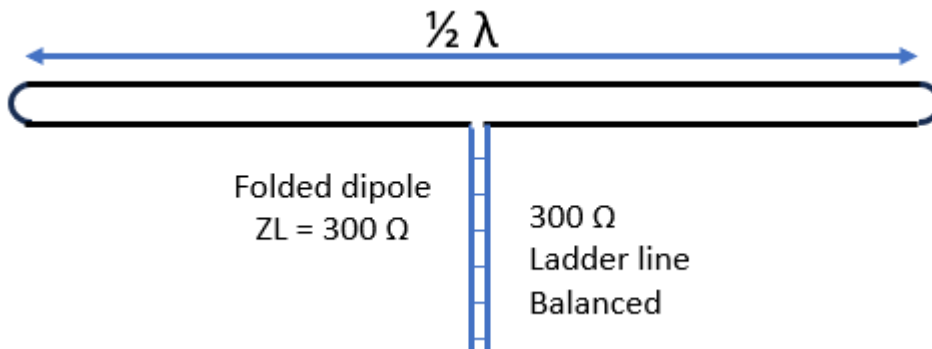
## Chapter 5-2 - Questions

Q1 Draw a picture of the following antennas.

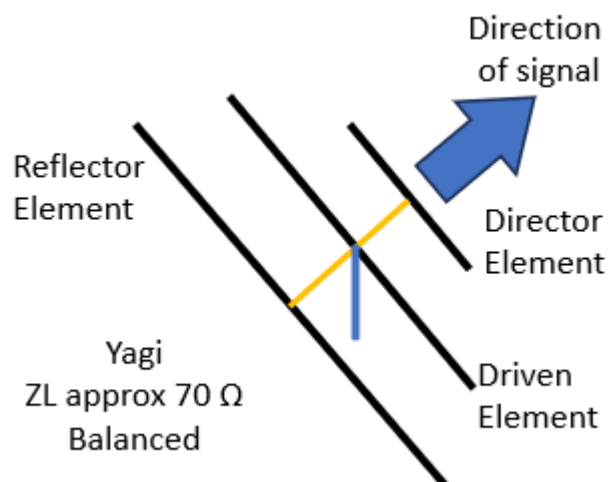
- Dipole



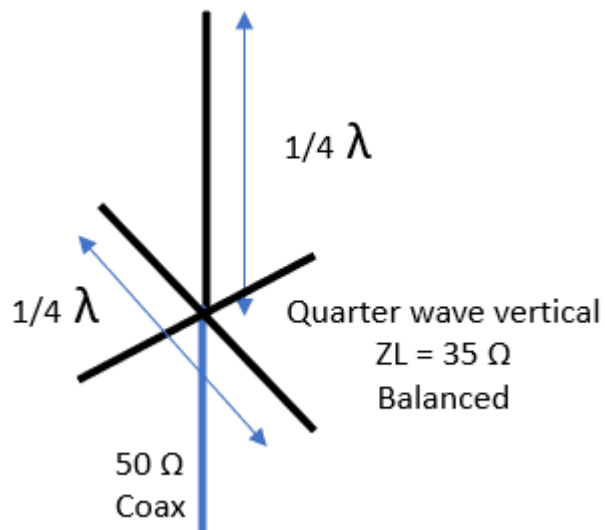
- Folded dipole



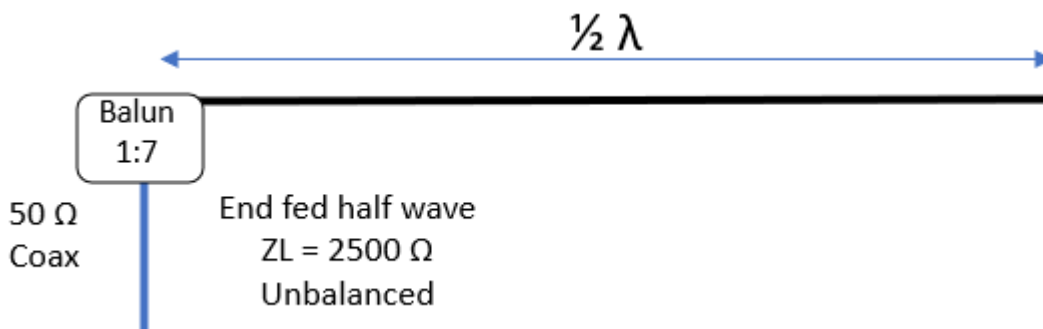
- Yagi



- Vertical or ground plane



- Long line



Q2 What is an antenna?

**An antenna converts alternating voltage electrical signals into electromagnetic fields for transmission and converts electromagnetic fields to alternating voltage electrical signals for reception.**

Q3 What is a balun?

**A balun is a type of transformer for matching impedances between transmission lines and antennas.**

Q4 Is the voltage or current greatest at the ends of a dipole?

**Voltage.**

Q5 Does an ATU alter the conditions of the transmission line and antenna? If not, what does it do?

**No. The ATU only makes the transmitter see the impedance it needs to transmit safely.**

Q6 I test my antenna and it has an SWR of 5:1, is this good and if not why not?

**Not good. Transmissions at that SWR level could damage the transmitter.**

Q7 What are the three polarisation configurations for antennas?

**Vertical, Horizontal and circular**

Q9 How can an antenna have gain?

**Compared to an isotropic antenna with a gain of 1, a yagi is directional so all the energy is directed one way. So comparing a yagi signal to the isotropic antenna, the yagi has gain in that direction.**

Q10 What is an isotropic antenna?

**This is an ideal theoretical antenna with a gain of 1 in all directions.**

Q11 What device would I use to test the continuity of a transmission line?

**Multimeter.**