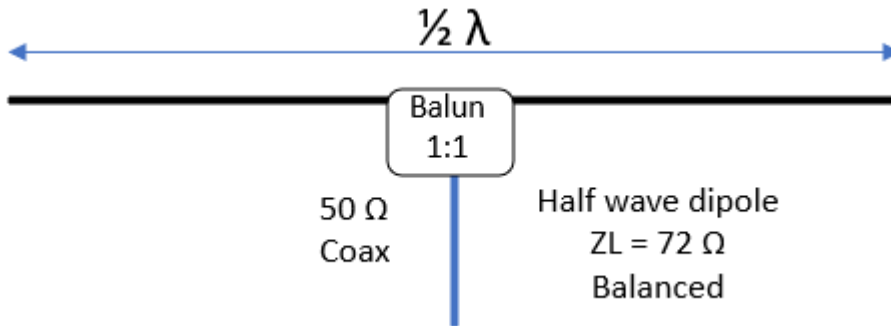


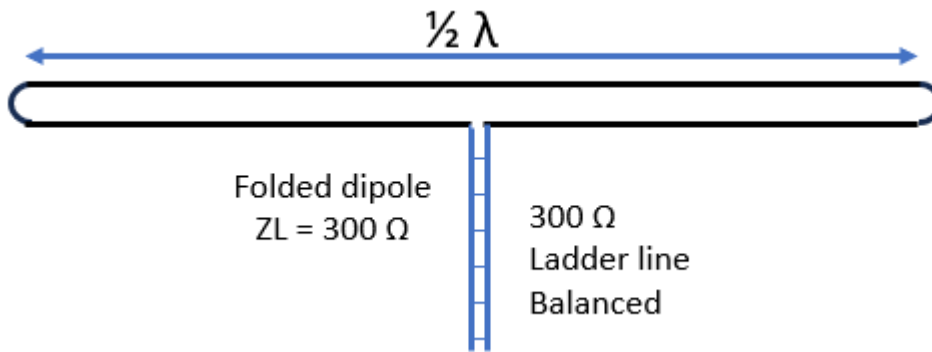
Chapter 5-2 - Questions

Q1 Draw a picture of the following antennas.

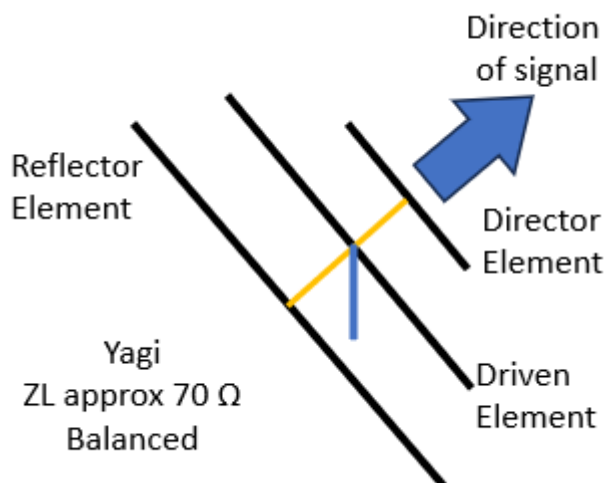
- Dipole



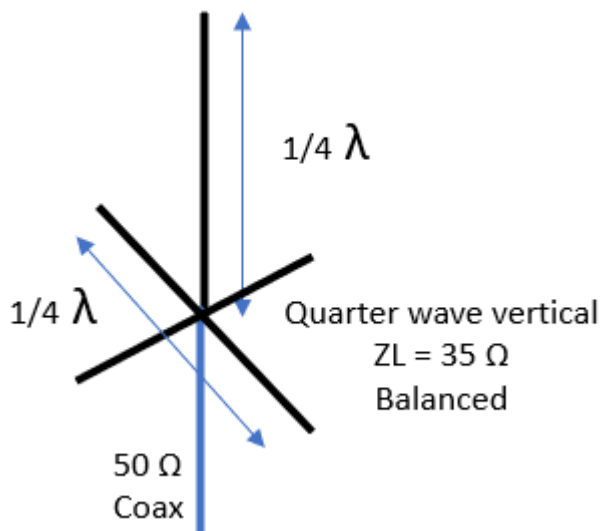
- Folded dipole



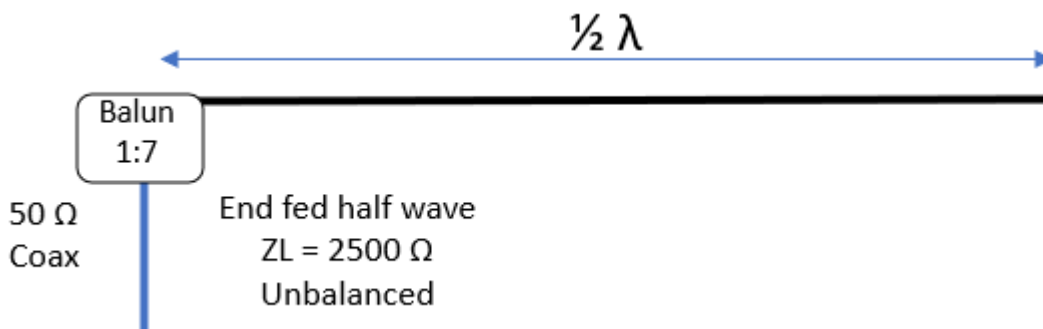
- Yagi



- 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.