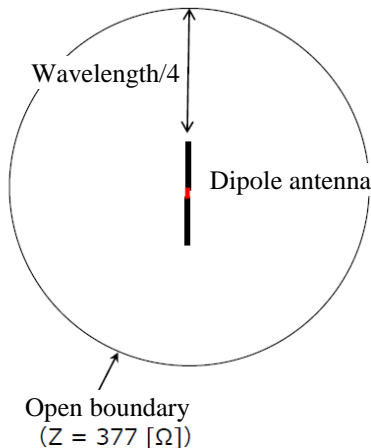


Question 13

Q: How much size of air domain is required to analyze an antenna?
(Electromagnetic analysis/Hertz/Air/Size)

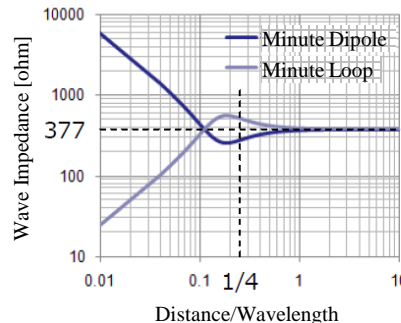
A: Keep a gap of at least a quarter wavelength between the antenna and open boundaries.



The **open boundary** is a boundary condition where electromagnetic waves do not reflect. The open boundary is provided by using the plane wave's wave impedance of free space, which has a value of 377 Ω by default.



The antenna and the open boundary must be away from each other such that **the electromagnetic wave can be treated as a plane wave.**



A gap of at least $\lambda/4$ is recommended in Femtet.