**EE307 assignment4 Homework**

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**Homework1:**

Derive H and E field from Vector Potential on page 19

A 1-m–long dipole is excited by a 1-MHz current with an amplitude of 12 A.What is the average power density radiated by the dipole at a distance of 5 km in a direction that is 45◦ from the dipole axis?

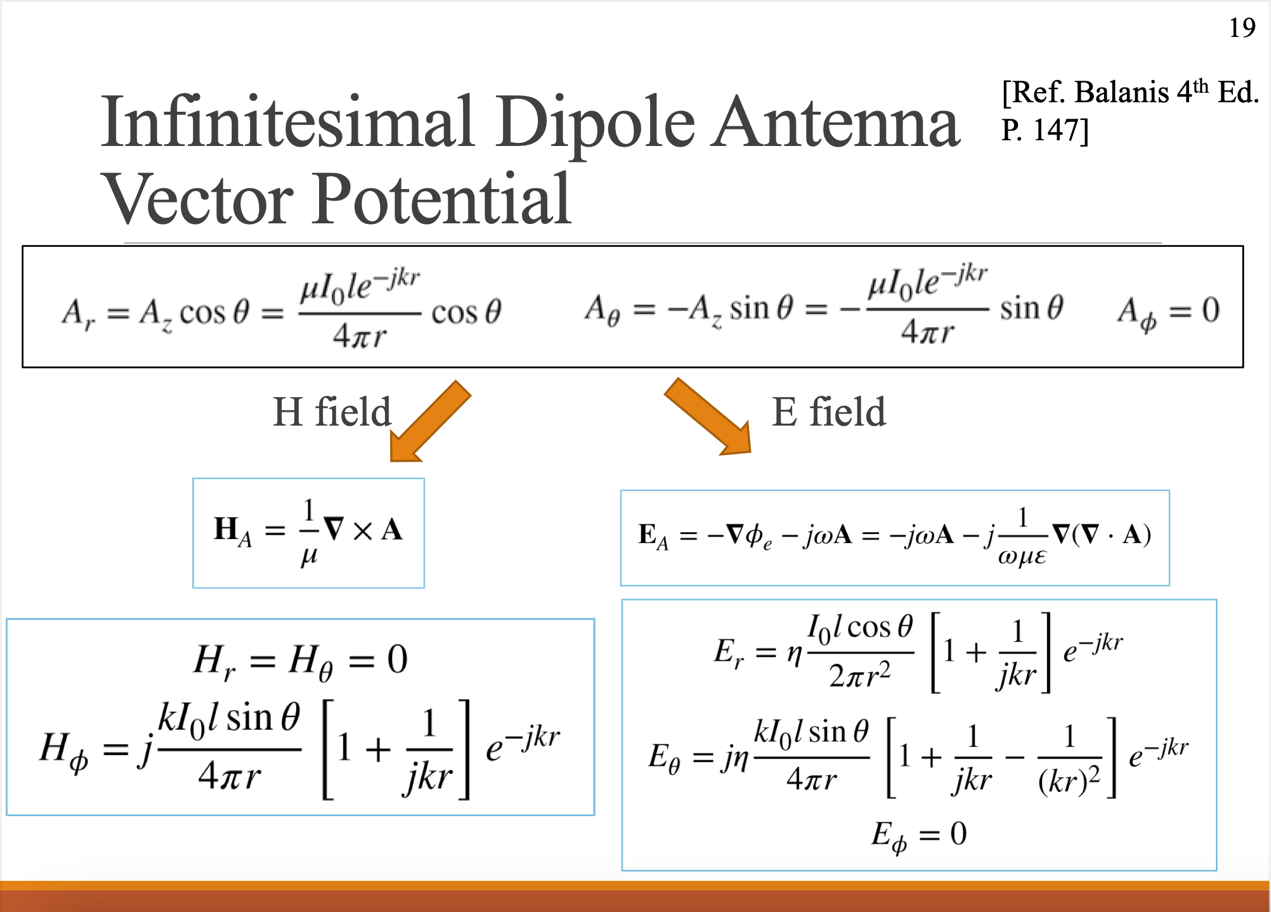
Calculate radiation resistance of a 0.25-meter dipole antenna working at 600MHz

Plot radiation pattern for

half wavelength dipole

quarter wavelength monopole (infinite ground)

Calculate directivity and HPBW for each antenna



1. Because

So in H field, we get

**Homework2:**