Preparation Assignment - Set 5

Reading Assignments

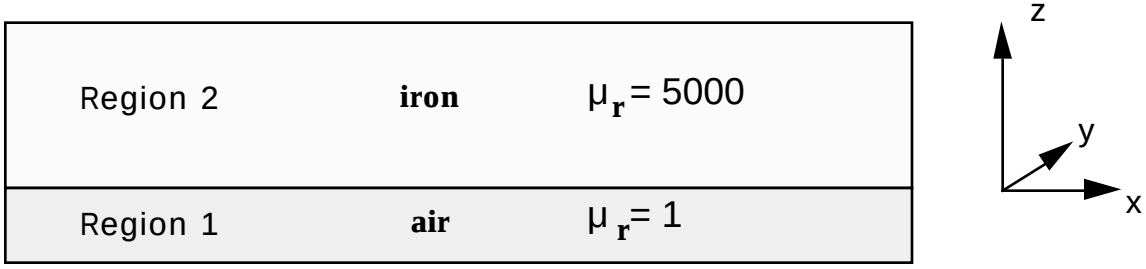
See the handouts for each lesson for the reading assignment

March 15 class - Lesson 3.6

Assignment due at start of class (2 points)

1. The magnetic field in a piece of Nickel ($\mu_r = 600$), $\mathbf{H} = 100\ \mathbf{a}_y$. What is the magnetic flux density, **B**?

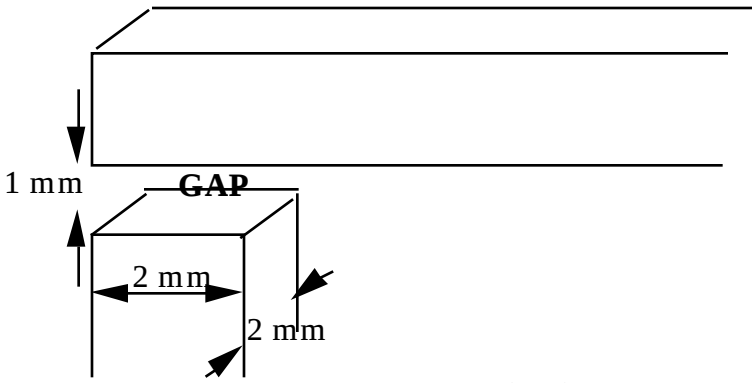
2. In the air region below, **B** = 0.1 Tesla $\mathbf{a}_z$. What is **B** in the iron region? Be sure to show the formula that you use to get your answer.



March 17 class - Lessons 3.7 and 3.8

Assignment due at start of class (2 points)

1. When in the open posistion, a relay has an air gap shown below. What is the reluctance of this air gap?



2. An air region that covers a volume of $2 \times 10^{-3}\ m^3$ has **B** = 0.1 Tesla $\mathbf{a}_z$ everywhere. What is the total stored magnetic energy in this region?

March 18 & 19 classes

Open shop to work on Homework 5. Due at 5 PM on March 19.