

This homework assignment concerns notetaking on the reading material. Your assignment is to make a notebook entry for each of the 21 numbered equations in Serway Chapter 27. The entry should include:

1. a label or title for the equation (call it whatever you want);
2. the equation;
3. an itemized list of every symbol used in the equation with a description of what that symbol represents in the context of the equation.

Below is a sample covering the first three equations. Due Wednesday, 13 February 2008.

AVERAGE CURRENT

$$I_{\text{avg}} = \frac{\Delta Q}{\Delta t} \quad (27.1)$$

I_{avg} is the average current.

ΔQ is the amount of charge that passes through a surface A .

Δt is the time it takes for ΔQ to pass through A .

INSTANTANEOUS CURRENT

$$I = \frac{dQ}{dt} \quad (27.2)$$

I is the instantaneous current.

dQ is a differential amount of charge.

dt is a differential amount of time.

DEFINITION OF AMPERE

$$1 \text{ A} = 1 \text{ C/s} \quad (27.3)$$

A is an ampere, the SI unit for electric current.

C is a coulomb.

s is a second.