

Homework Assignment #8

Chapter 4 The Wavelike Properties of Electromagnetic Radiation

Modern Physics (3rd Edition) by Kenneth Krane

Due Date: Thursday, March 23, 2017

In these problems, when the problem asks for mass, energy, and momentum, please write your answers in units of:

Mass $\rightarrow MeV/c^2$ not kilograms !!

Momentum $\rightarrow MeV/c$ not kilograms·meters/sec !!

Energy $\rightarrow MeV$ not joules !!

unless otherwise specified.

When you are asked for velocities, always quote your answers in units of "c," the speed of light.

$$\text{velocity} = \beta c$$

Problems: 1, 2, 3, 7, 10, 17, 19, 20, 24, 29, 33, 37