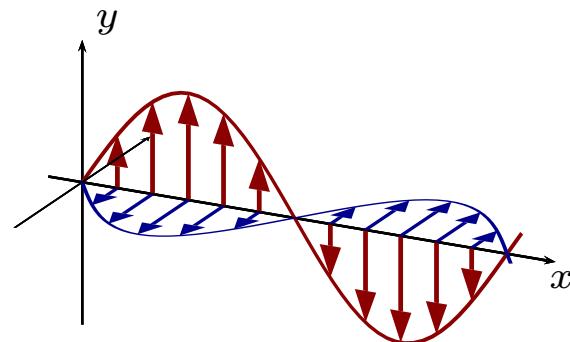


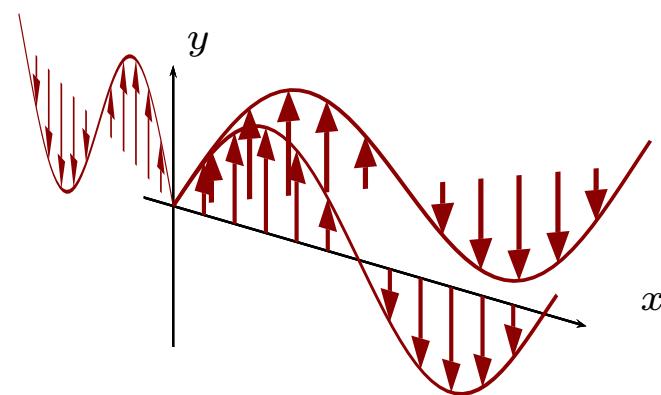
Electromagnetic Wave Propagation Along One Line

Electromagnetic wave propagating along $+x$ direction.
Red indicates the electric field, blue the magnetic field.



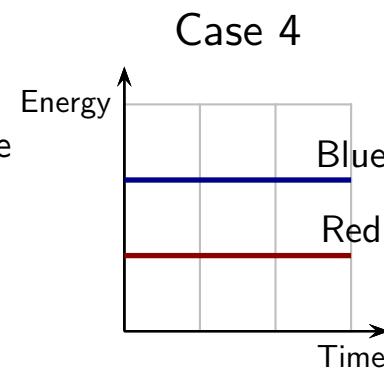
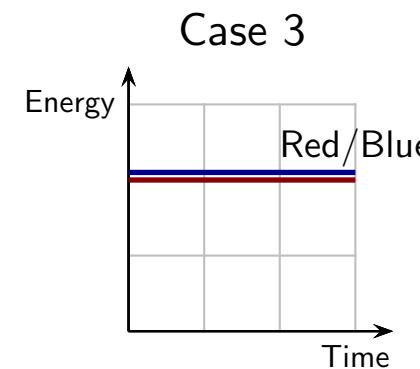
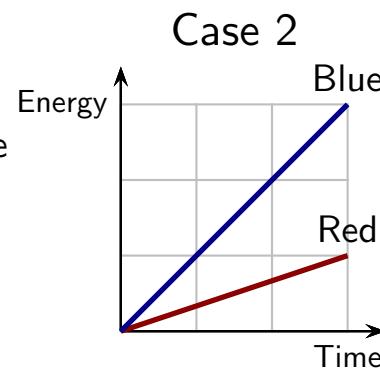
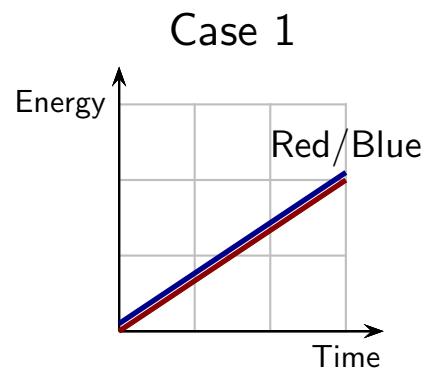
Electromagnetic Wave Propagation Along Several Directions

Electromagnetic waves produced by charge oscillating up and down the y axis.
Red indicates the electric field.



Question 1

In separate experiments, two sources produce light with the same constant intensities. In each case light is incident upon a screen with the same area. Red light has a lower frequency than blue light. According to classical physics, which of the following best represents the accumulation of energy at the screen with time from the sources?



Question 2

The PhET animation “Photoelectric Effect” illustrates emission of electrons by light from various metals. When the wavelength of the light is 229 nm, electrons are emitted from either Sodium or Copper. The electrons that are emitted from Sodium typically travel faster than those emitted from Copper.

Based on this information which of the following is true?

1. The work function for Sodium is smaller than that for Copper.
2. The work function for Sodium is larger than that for Copper.
3. The work function for Sodium is the same as that for Copper.