Lab questions (show all work)

You are given a diffraction grating of d = 1.89 ee -6 meters. You shine a laser of unknown wavelength through the grating and see a spacing of 3 cm on a screen 4 meters away. Find the wavelength of the laser, and explain how you would set this up (include a diagram).

A 12 volt power supply is hooked up to a 6 ohm resistor to produce heat. Make a diagram of this, and calculate the current and power produced in this lab.