Physics Lab 6 Questions

Questions 2 – The diffraction pattern of the light as it goes through the circular opening produces a wider oval light pattern. Instead of the narrow circular pattern that is produced from the rectangle slits. As well as producing wider minima between the fringes.

Questions 3 -

Question 4 - Yes, the known wavelength falls within the experimental range because the theoretical wavelength is within one standard deviation of our experimental value. As well as being between the mode of the values achieved during our experiment.

Questions 6 – There are two major possibilities for errors within this experiment. First would be the common human error. For example, if we misaligned the laser and the slit then our fringes and patterns would be wrong. As well as the possibility of the slides being dirty or damaged internally would also produce inconsistent patterns.