

FORMATION OF IMAGES BY A CONVERGING LENS

Read/Study Chap 33: 33.1 and 33.2 especially look over figures 33-3, 33-6 and 33.9

Questions to be handed when due.

1. The distance of an object from a lens is called the?
2. The mathematical symbol used in question 1 is?
3. The distance of the image that a lens projects to a screen is called the?
4. For a converging lens the height (size) of the original object it is projecting we use the symbol h_o and the image height we use h_i . The lateral magnification m is given by the formula?
5. If d_o is the distance of the object of a thin lens of focal length, f , and d_i is the image distance then the relation between them all is known as the ?
6. What is the formula for the relation in question 2?

Problem to hand in with your lab report: Show all work (formulas and math used)

P1. An object 23 cm high, lies 50 cm from a thin converging lens, which projects an image of the object on a screen located 125 cm from the object.

- a) What is the focal length of the lens?
- b) Is the image bigger or smaller than the object?
- c) What is the size of the object?
- d) From your work is the image inverted or right side up?