

Physics Lab Lenses

This lab will be on all the assessment criteria.

Introduction:

If an object is placed a distance o from a convex lens with focal length f it forms an inverted image at a distance i from the lens. The relationship between these variables is given by $\frac{1}{o} + \frac{1}{i} = \frac{1}{f}$. The magnification of the image is given by $\frac{i}{o}$.

Procedure:

Use the light source with the object in its window and the lens to create an image on a screen. Design an experiment to test both of the above relationships using graphical analysis. Use your graphs to determine the focal length of your lens and compare that with the stated value.