

Write-up

Eyeball lens magnification

Place the eyeball lens directly on some words printed on a page (a page you'll throw out later!). Look at one letter specifically. Calculate the magnification that the lens has by dividing the size of the magnified letter image (s_i) by the size of the actual letter (s_o):

$$m = \frac{s_i}{s_o}$$

Lens focal length:

Look out the classroom window and choose an object far away (a tree or building). Hold up the lens near the window. Hold a sheet of white paper on the side of the lens opposite the window. Move the paper back and forth until the distant object comes in clear focus. This is your lens focal length. Measure and record with appropriate units.

$$f = \underline{\hspace{2cm}}$$

Try gently squeezing the lens to make it thicker in the middle. Does this change your focal length? Is so, by how much?