

Images Formed by Lenses

Name: _____

Aim: To observe images formed by convex and concave lenses.

Equipment: Concave lenses, convex lenses, ruler.



Part A: Convex Lenses



1. Observe an object up close with a convex lens. Describe the image formed by the lens.

2. Holding the convex lens at about arm's length from your eyes, observe an object that is far away (such as the window). Describe the image formed by the lens.



3. With the classroom window opposite, hold the convex lens up in front of a piece of paper until a focused image of the window forms on the paper. Describe the image formed on the paper.

(This is how a camera and our eyes work!)

4. Measure the distance of the image to the lens. This is the approximate focal length of the lens. Focal length of lens = _____ cm.
5. Place two lenses next to each other and repeat Steps 3 and 4. Focal length of the two-lens system = _____ cm.



6. Place a fat convex lens near your eye and a thinner convex lens a little further away (kind of like you're holding a telescope). Move the thinner lens back and forth until you see a focussed image when looking through both lenses. Describe the image that you see.



Part B: Concave Lenses



7. Observe an object up close with a concave lens. Describe the image formed by the lens.

8. Observe an object that is far away with the concave lens (such as the window). Describe the image formed by the lens. _____

