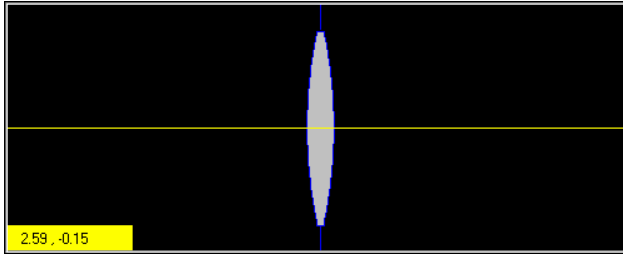
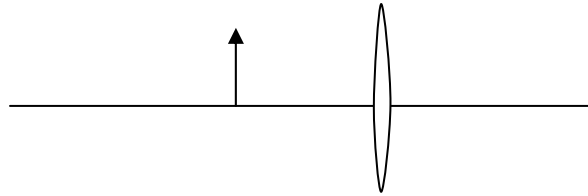


Worksheet for Exploration 35.1: Image Formation

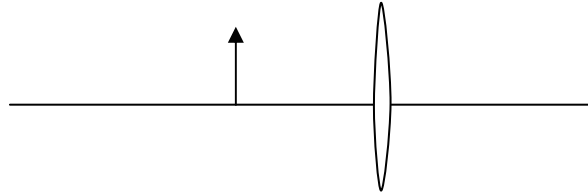


An object is placed in front of a converging lens outside of the focal point. [Restart](#).

- a. Draw a ray diagram to locate the image. You can check your answer below.



- b. [View object and image](#). Now consider a point at the top of the object. Light must leave this point and travel in all directions (otherwise everyone in a room would not be able to view an object at the same time). Draw the rays that leave the top of the object and travel through the lens. Once you have your drawing, check your answer by clicking on the link below. Were you correct? If not, why?



- c. [Initialize part \(c\)](#) and then move the light source to different points on the object. As you drag the point source up and down, notice that the rays from one point on the object all converge at the same point on the image. Are all the rays leaving a point on the object blocked if half of the lens is cut off?

[Add a screen](#). How would the image appear if the top half of the lens were blocked?

[Check \(a\)](#) [Check \(b\)](#)