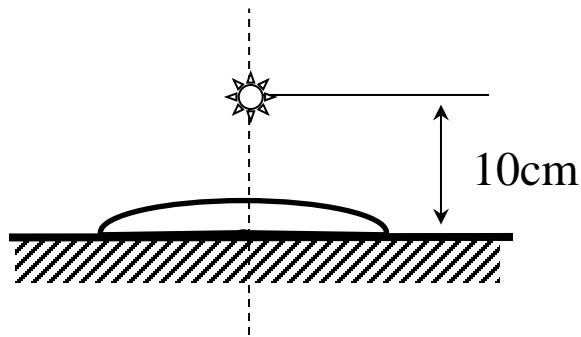


Homework 7

1. A plano-convex thin lens with the focal distance of 40cm is placed on a mirror (see fig.). At the optical axis of the lens, 10 cm above the lens is a point source of light. Where is the image of the point source?



2. You have a flat glass plate with the air bubble in the shape of a convex lens. Can you use this plate as a lens? What kind of lens is it?
3. A convex lens produces a real image which is 2 times larger than the object. Find the focal distance of the lens if the distance between the lens and the image is 24cm. Make the picture.
4. An object is placed 25cm before the front focal point of a concave lens. The image is produced 36cm behind the rear focal point. Find the focal distance of the lens. Make the picture.