

Homework 7

1. A concave mirror is filled with water. The radius of curvature is 40cm; the refractive index of water is  $4/3$ . Find the focal distance of this optical system.



2. 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?

