WS 17

Imagine you have a bi-convex lens in which the convex surface has a radius of curvature of 50 mm and the glass has an index of refraction n=2. The lens has a diameter of 50 mm. Rays from a distant point object are incident on the lens at the angle shown. A) Based on the lens makers equation, calculate the location of the screen and draw a straight line at its location. Sketch the image you would see on the screen. B) Using Snell's law, calculate the path of each ray. Interpret the image you would see on the screen.
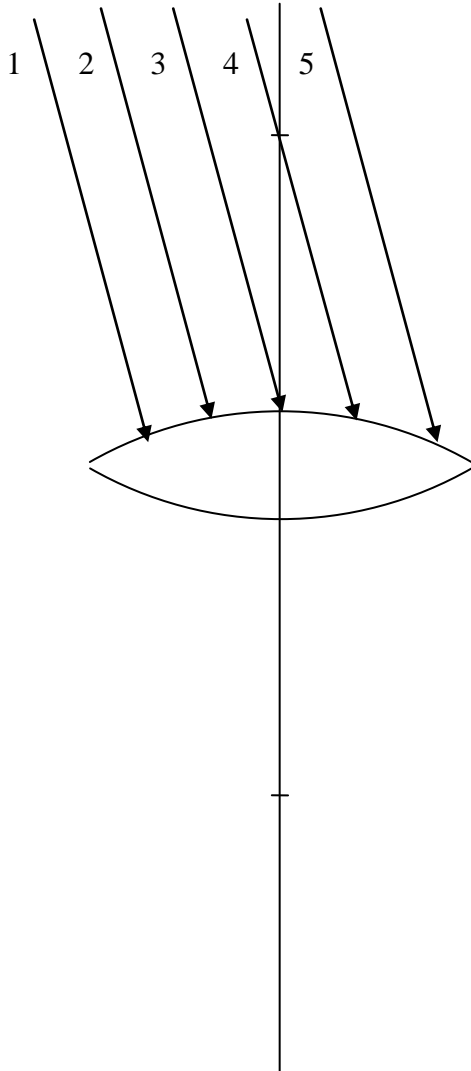
Now imagine the point source is located a little closer – say 75mm.  Repeat the calculations from the previous part and sketch the image of this situation.