

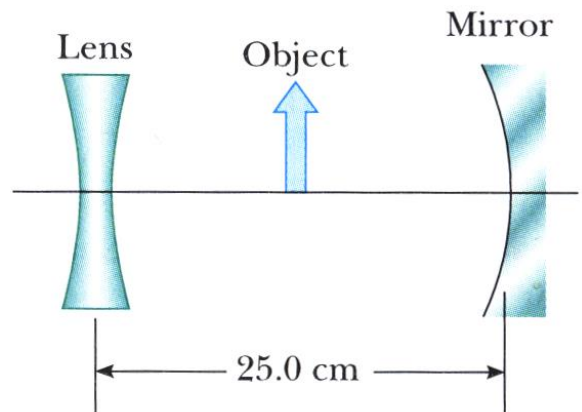
**Name:** \_\_\_\_\_**Problems Solved** \_\_\_/ 3

A real object is located at the zero end of a meter stick. A large concave mirror at the 100 cm end forms an image of the object at the 70.0 position. A small convex mirror placed at the 20.0cm position forms a final image at the 10.0 cm point.

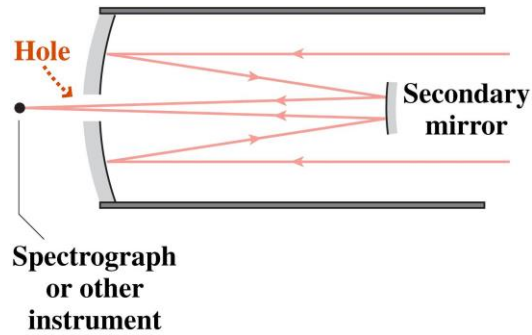
What is the radius of curvature of the convex mirror if the concave mirror is 152.2 degrees?

The object in the image is midway between the lens and the mirror. The mirror's radius of curvature is 20.0cm and the lens has a focal length of -16.7 cm.

Considering only the light that leaves the object and travels first toward the mirror, locate the final image formed by this system. Is the image real or virtual, upright or inverted, and what is the overall magnification?



A Cassegrain telescope like that shown in the figure has a primary mirror with a 1.0 m focal length. The convex secondary mirror is located 0.85 m from the primary. What should be the focal length of the secondary in order to put the final image 0.12 m behind the front surface of the primary mirror?



(b)

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