

## Geometrical Optics

### Problems for Week 2

1. A coin of 3 cm in diameter is 12 cm away from a concave mirror with a radius of curvature of 6 cm. Find the image of the coin. You can choose an orientation of the coin.
2. A converging<sup>g</sup> convex-concave glass lens is made with two spherical surfaces of 13 cm and 10 cm in radius. Find its focal length in air.
3. A biconvex glass lens is made with two spherical surfaces of 15 cm and 10 cm in radius. Find its focal length in air.
4. A coin of 1.2 cm in diameter is 4 cm away from a biconvex lens that has a focal length of 12 cm. Find the image of the coin. You can choose an orientation of the coin.