

## Reflection Problem Set

**C.1** An object is placed between the focal point and center of curvature of a concave mirror. Draw a ray diagram to determine the nature of the image. Check all the boxes that describe the image.

- Real
- Virtual
- Smaller
- Larger
- Upright
- Inverted

**C.2** An object is placed between a concave mirror and its focal point. Draw a ray diagram to determine the nature of the image. Check all the boxes that describe the image.

- Real
- Virtual
- Smaller
- Larger
- Upright
- Inverted

[view answer](#)

**C.3** An object is placed in front of a convex mirror. Draw a ray diagram to determine the nature of the image. Check all the boxes that describe the image.

- Real
- Virtual
- Smaller
- Larger
- Upright
- Inverted

**C.4** An object is placed 20.0 cm in front of a concave mirror with focal length 9.00 cm. Draw a ray diagram to determine the nature of the image. Check all the boxes that describe the image.

- Real
- Virtual
- Smaller
- Larger
- Upright
- Inverted

1. An object is 17.3 cm from a concave mirror of focal length 8.10 cm. (a) What is the image distance? State your answer with the correct sign. (b) What is the magnification? (c) Is the image upright or inverted?
2. The focal point of a convex mirror is 22.4 cm from the mirror's surface. An image seen in the mirror is between the mirror and the focal point, 12.9 cm from the focal point. How far from the mirror is the object?
3. You wish to use a concave mirror to produce a virtual image that is three times the size of an object. (a) Which will be closer to the mirror, the image or the object? (b) If the object is 22.0 cm from the mirror at this magnification, what is the radius of curvature of the mirror?