Work each of the following problems. SHOW ALL WORK.

1. An object is 4.5 cm from a concave mirror, with its base on the principal axis. The focal point of the mirror is 2 cm.

   a. Show the location of the image relative to the mirror using a ray diagram. Is the image real or virtual, inverted or upright, and larger or smaller than the object?

   _____

   b. Calculate the distance to the image.

   c. Determine the magnification of the image.

2. An object is 4 cm from a concave mirror, with its base on the principal axis. The focal point of the mirror is 3 cm.

   a. Show the location of the image relative to the mirror using a ray diagram. Is the image real or virtual, inverted or upright, and larger or smaller than the object?

   _____

   b. Calculate the distance to the image.

   c. Determine the magnification of the image.

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Unit 6L
Spherical Mirrors
Practice Problems

Work each of the following problems. SHOW ALL WORK.

3. A virtual image is 5 cm from a concave mirror, with its base on the principal axis. The focal point of the mirror is 5 cm.

    a. Calculate the distance to the object.

    b. Determine the magnification of the image.

    c. Show the location of the image relative to the mirror using a ray diagram. Is the image real or virtual, inverted or upright, and larger or smaller than the object?

    _____

4. A virtual image is 1.8 cm from a convex mirror. The focal point of the mirror is 3 cm.

    a. Calculate the distance to the object.

    b. Determine the magnification of the image.

    c. Show the location of the image relative to the mirror using a ray diagram. Is the image real or virtual, inverted or upright, and larger or smaller than the object?

    _____

Unit 6L
Spherical Mirrors
Practice Problems

Work each of the following problems. SHOW ALL WORK.

5. An object is 1.5 cm from a convex mirror, with its base on the principal axis. The focal point of the mirror is 3 cm.

   a. Show the location of the image relative to the mirror using a ray diagram. Is the image real or virtual, inverted or upright, and larger or smaller than the object?

   _____

   b. Calculate the location of the image.

   c. Determine the magnification of the image.