PHYS 202 Image formation by mirrors Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The lens/mirror equation, magnification, and lens power are given by:**

**lenson1 lenson2**            

1. Sketch a concave mirror and its principal axis. Using rays that are parallel to the principal axis, show the focal point and focal length, and identify the sign for the focal length.

2. An object is placed 15 cm in front of a concave mirror of focal length of 25 cm.

(a) Determine the image distance.

(b) Determine the magnification of the image.

(c) Describe three properties of the image.

(real/virtual, magnified/reduced, upright/inverted)

(d) Draw a ray diagram to illustrate the formation of the image.

PHYS 202 Image formation by mirrors Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The lens/mirror equation, magnification, and lens power are given by:**

**lenson1 lenson2**            

1. Sketch a convex mirror and its principal axis. Using rays that are parallel to the principal axis, show the focal point and focal length, and identify the sign for the focal length.

2. An object is placed 8.0 cm in front of a convex mirror of focal length of 12 cm.

(a) Determine the image distance.

(b) Determine the magnification of the image.

(c) Describe three properties of the image.

(real/virtual, magnified/reduced, upright/inverted)

(d) Draw a ray diagram to illustrate the formation of the image.