## Task #1

A diverging lens has a focal length of 9.0 cm, and an object is placed 3.0 cm from the lens.

- (a) What would be the distance of the image from the lens?
- (b) What is the magnification of the image?
- (c) Will the image be real or virtual? How do you know?
- (d) Will the image be upright or inverted? How do you know?

## Task #2

A projector LCD screen of height 0.5 cm is placed 1.2 cm away from a lens. An inverted real image is projected 240 cm away.

- (a) What would be the height of the image?
- (b) What is the magnification of the image?
- (c) What is the focal length of the lens?

## Task #3

A *converging* lens has a focal length of 5 cm. What is the magnification of an object that is placed 3 cm in front of the lens?