001 (part 1 of 3) 10.0 points
A diverging lens has a focal length of 22.5 cm. An object 2.17 cm in height is placed 28.8 cm in front of the lens. Locate the position of the image. Answer in units of cm.

002 (part 2 of 3) 10.0 points
What is the magnification?

003 (part 3 of 3) 10.0 points
Find the height of the image. Answer in units of cm.

004 10.0 points
A converging lens has a focal length of 36.8 cm. If the object is 60.5 cm from the lens, what is the image distance? Answer in units of cm.

005 (part 1 of 4) 10.0 points
A thin converging lens of focal length 12.2 cm forms an image of an object placed 28.5 cm from the lens. Find the image distance. Answer in units of cm.

006 (part 2 of 4) 10.0 points
What is the magnification for an object distance of 28.5 cm?

007 (part 3 of 4) 10.0 points
Find the location of the image for an object distance of 3.3 cm. Answer in units of cm.

008 (part 4 of 4) 10.0 points
Calculate the magnification for an object distance of 3.3 cm.

009 (part 1 of 3) 10.0 points
The image formed by a thin converging lens is located at a position that is a distance from the lens that is 5 times the focal length $f$. If the image is real, what is the object distance? Answer in units of $f$.

010 (part 2 of 3) 10.0 points
If the image is virtual, what is the object distance? Answer in units of $f$.

011 (part 3 of 3) 10.0 points
What is the magnification of the lens for the case in which the image is virtual?

012 (part 1 of 4) 10.0 points
An object is placed 10 m before a convex lens with focal length 5 m. Another convex lens is placed 12.6 m behind the first lens with a focal length 6.2 m (see the figure below). Note: Make a ray diagram sketch in order to check your numerical answer.

At what distance is the first image from the first lens? Answer in units of m.

013 (part 2 of 4) 10.0 points
What is the magnification of the first image?

014 (part 3 of 4) 10.0 points
At what distance is the second image from the second lens? Answer in units of m.

015 (part 4 of 4) 10.0 points
What is the magnification of the final image, when compared to the initial object?