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## Ray Diagrams for Diverging Lenses

Read from Lesson 5 of the Refraction and Lenses chapter at The Physics Classroom:
http://www.physicsclassroom.com/Class/refrn/u1415ea.html http://www.physicsclassroom.com/Class/refrn/u1415eb.html

MOP Connection: Refraction and Lenses: sublevels 10 and 11

For the following lenses and corresponding object positions, construct ray diagrams. Then describe the Location of the image, Orientation (upright or inverted) of the image, the relative Size of the image (larger or smaller than object), and the Type of image (real or virtual).


NOTE: 1) All light rays have arrowheads that indicate the direction of travel of the ray.
2) Always draw in the image once located (an arrow is a good representation).
3) Exactness counts. Use a straight-edge and be accurate.

Case 1: If the object is located far away from the lens:


## Description of Image:

Location: $\qquad$
O: Upright or Inverted S: Magnified or Reduced T: Real or Virtual
Case 2: If the object is located nearby the lens:


## Description of Image:

Location: $\qquad$
O: Upright or Inverted
S: Magnified or Reduced
T: Real or Virtual

