

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>

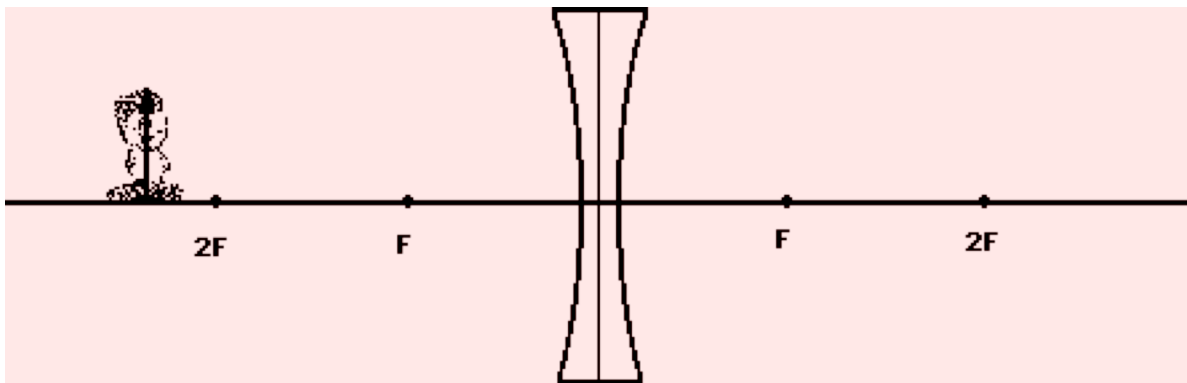
**MOP Connection:** Refraction and Lenses: sublevels 10 and 11

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 which 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:

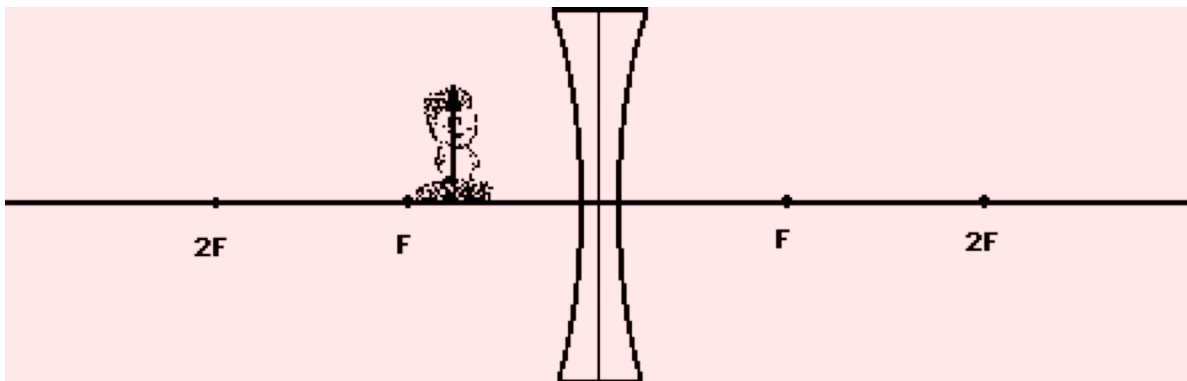


**Description of Image:**

Location: \_\_\_\_\_

**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: \_\_\_\_\_

**O:** Upright or Inverted      **S:** Magnified or Reduced      **T:** Real or Virtual