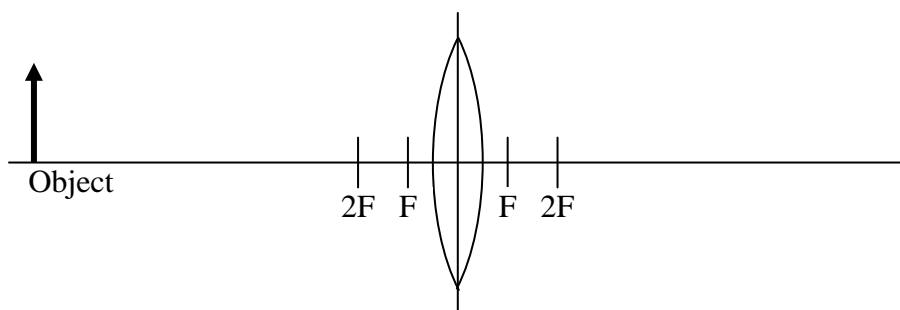


### Lens Ray Diagram

**Directions:** Use the rules from the *Optical Ray Diagram Rules* information sheet, follow along with your teacher to draw the ray diagrams for the various cases of optical references.

**Convex Lens** Has multiple cases.

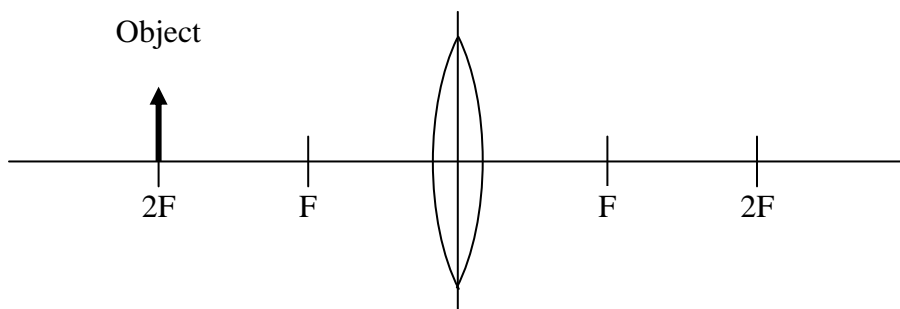
**Case I: Object is far beyond 2F (at  $\infty$ )**



Case I: Image Appears:

1. Location: \_\_\_\_\_
2. Orientation: \_\_\_\_\_
3. Size: \_\_\_\_\_
4. Image Type: \_\_\_\_\_

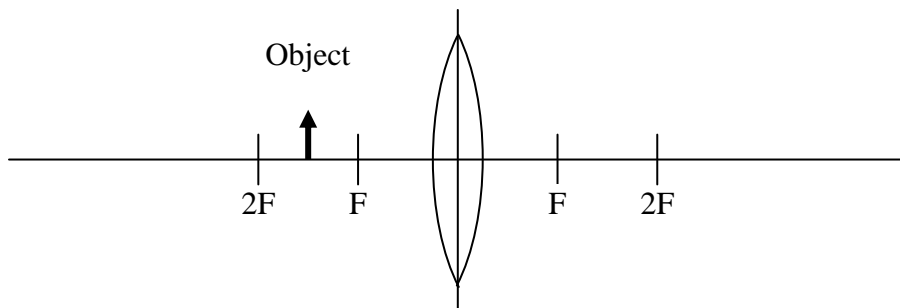
**Case II: Object is at 2F**



Case II: Image Appears:

1. Location: \_\_\_\_\_
2. Orientation: \_\_\_\_\_
3. Size: \_\_\_\_\_
4. Image Type: \_\_\_\_\_

**Case III: Object is between 2F and F**

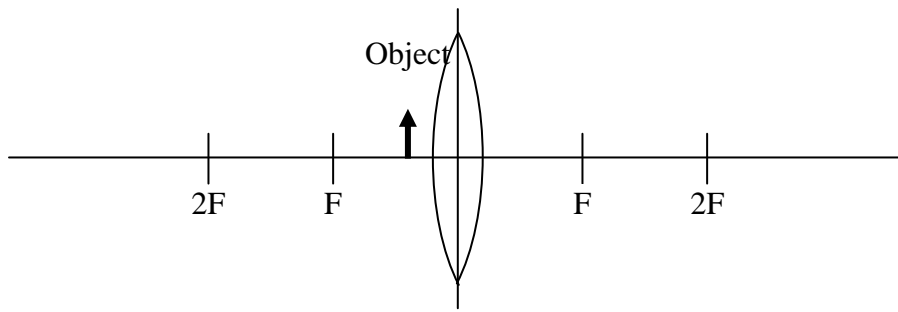


Case III: Image Appears:

1. Location: \_\_\_\_\_
2. Orientation: \_\_\_\_\_
3. Size: \_\_\_\_\_
4. Image Type: \_\_\_\_\_

(Over)

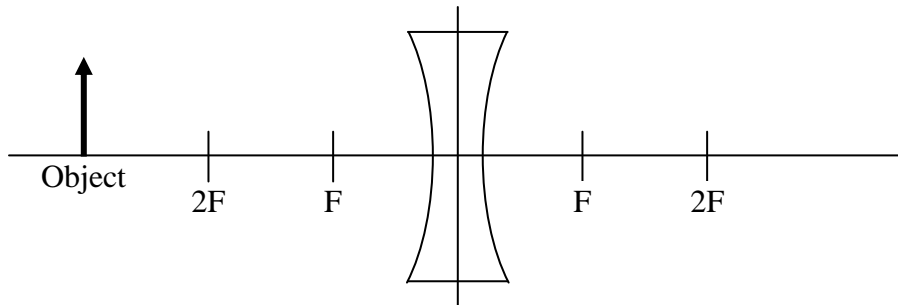
**Case IV: Object is inside F (between F and Lens)**



Case IV: Image Appears:

1. Location: \_\_\_\_\_
2. Orientation: \_\_\_\_\_
3. Size: \_\_\_\_\_
4. Image Type: \_\_\_\_\_

**Concave Lens** Has only ONE case.



Convex Mirror's Image Appears:

1. Location: \_\_\_\_\_
2. Orientation: \_\_\_\_\_
3. Size: \_\_\_\_\_
4. Image Type: \_\_\_\_\_