

# PhyzJob: Ray Tracing 3

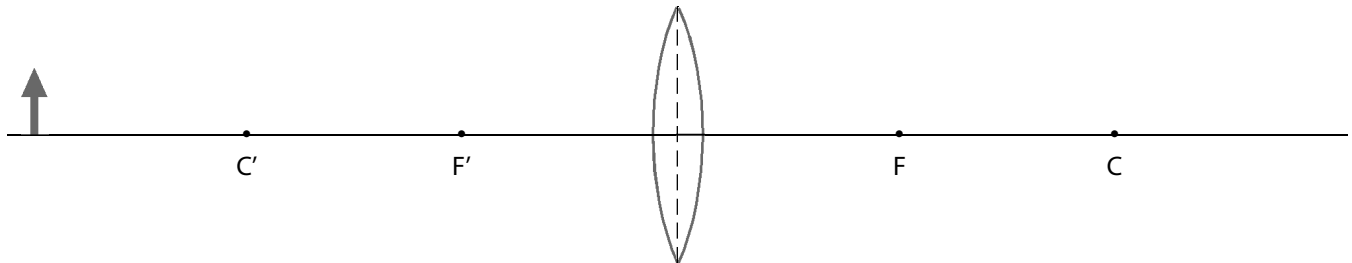
## Images in a Converging Lens



### INSTRUCTIONS:

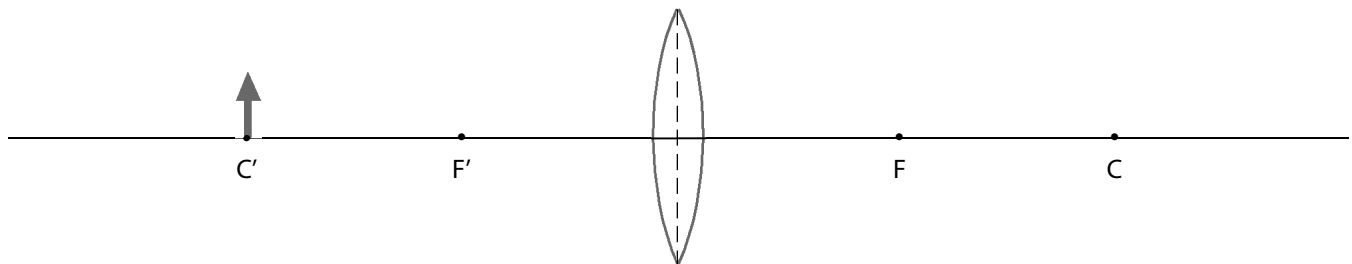
- Determine the location and size of the image by means of a ray diagram. Use *any* two principal rays to locate the image. (It's always a good idea to use a third principal ray to verify the image location.)
- Draw the image.
- Indicate whether the image is upright or inverted, enlarged or reduced, and real or virtual.

1. The object distance is greater than the radius of curvature ( $o > r$ ).



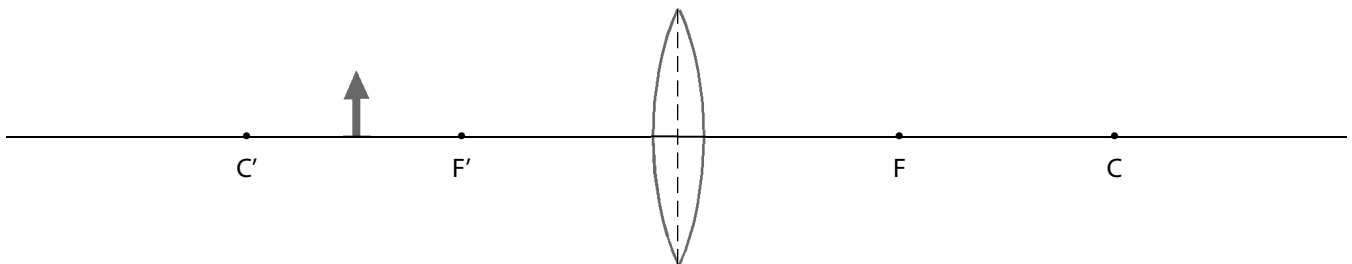
The image is \_\_upright \_\_inverted, \_\_enlarged \_\_reduced, and \_\_real \_\_virtual.

2. The object distance is equal to the radius of curvature ( $o = r$ ).



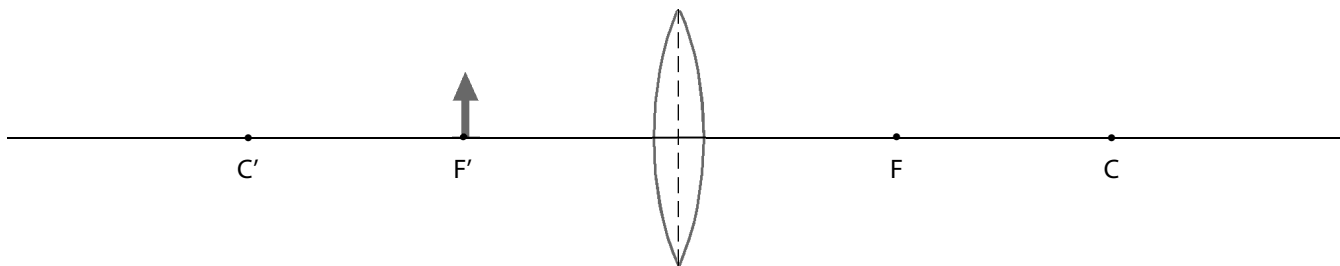
The image is \_\_upright \_\_inverted, \_\_enlarged \_\_reduced, and \_\_real \_\_virtual.

3. The object distance is less than the radius of curvature but greater than the focal length ( $r > o > f$ ).



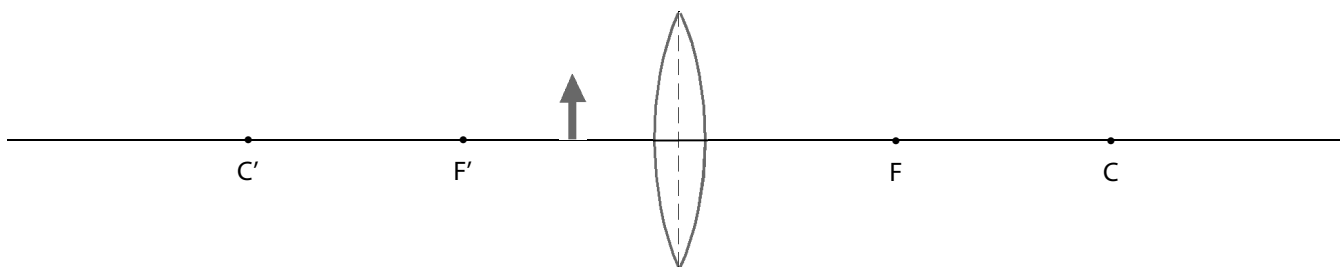
The image is \_\_upright \_\_inverted, \_\_enlarged \_\_reduced, and \_\_real \_\_virtual.

4. The object distance is equal to the focal length ( $o = f$ ).



The image is  upright  inverted,  enlarged  reduced, and  real  virtual.

5. The object distance is less than the focal length ( $o < f$ ).



The image is  upright  inverted,  enlarged  reduced, and  real  virtual.