

# PhyzJob: Ray Tracing 1

## Images in a Converging Mirror



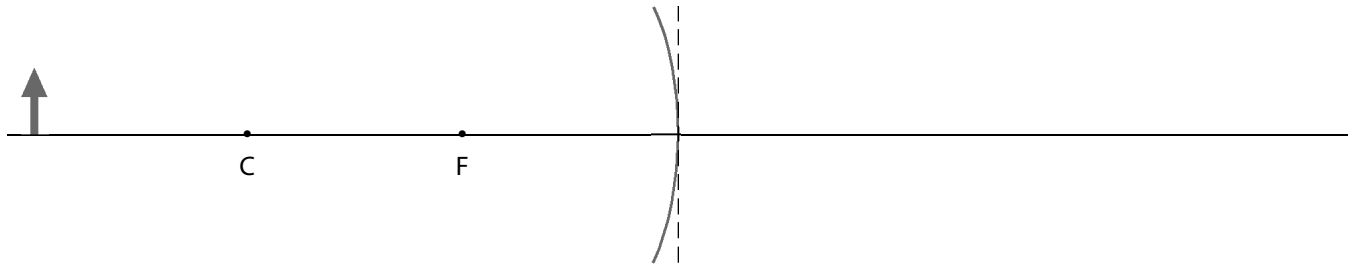
### INSTRUCTIONS:

a. 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.)

b. Draw the image.

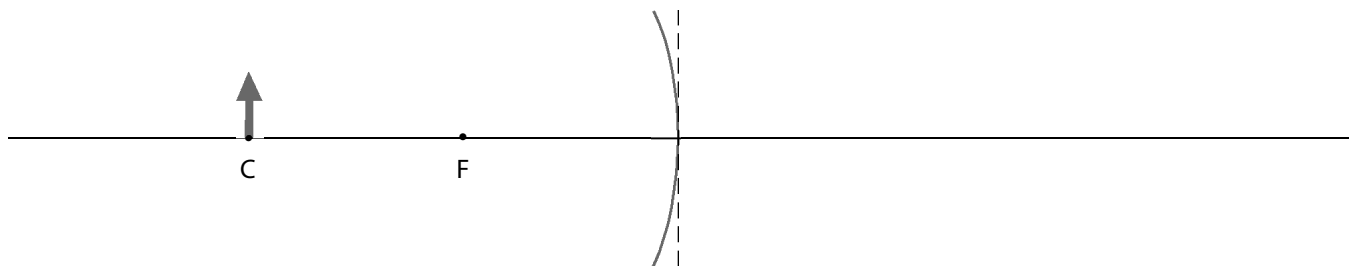
c. Indicate whether the image is upright or inverted, enlarged or reduced, and real or virtual.

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



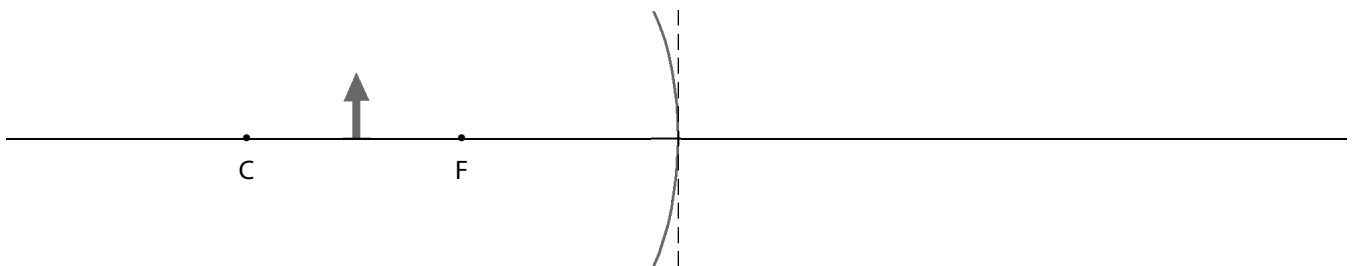
The image is \_\_upright \_\_inverted, \_\_enlarged \_\_reduced, and \_\_real \_\_virtual.

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



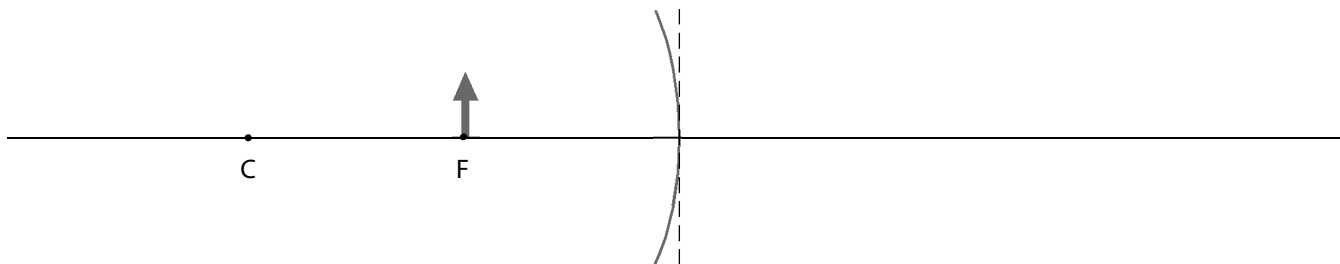
The image is \_\_upright \_\_inverted, \_\_enlarged \_\_reduced, and \_\_real \_\_virtual.

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



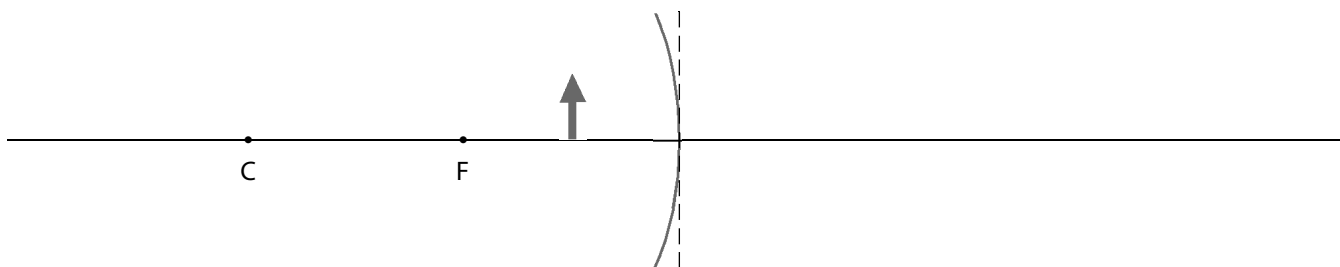
The image is \_\_upright \_\_inverted, \_\_enlarged \_\_reduced, and \_\_real \_\_virtual.

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.