

# ACTIVITY

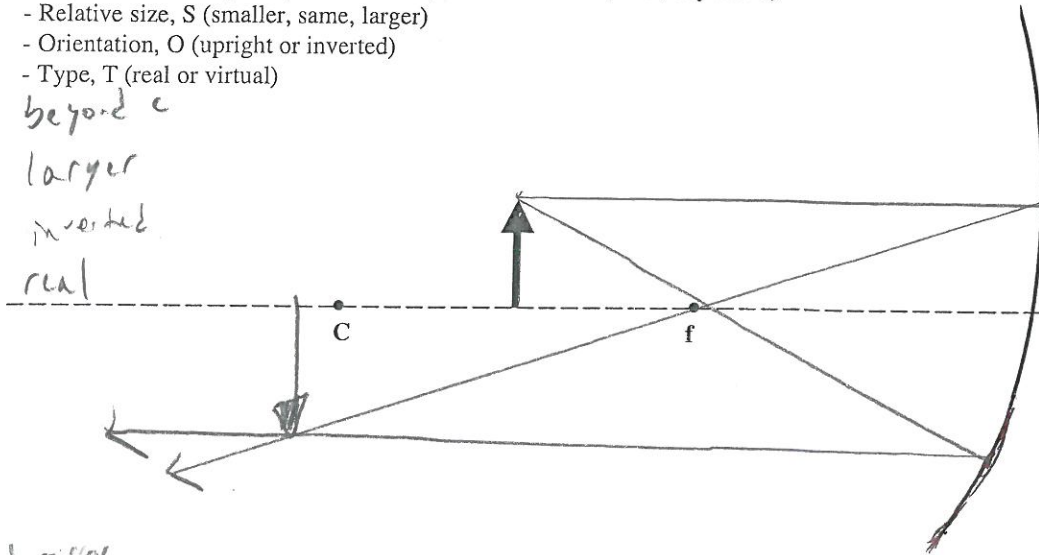
## MIRROR RAY DIAGRAMS

### PROCEDURE

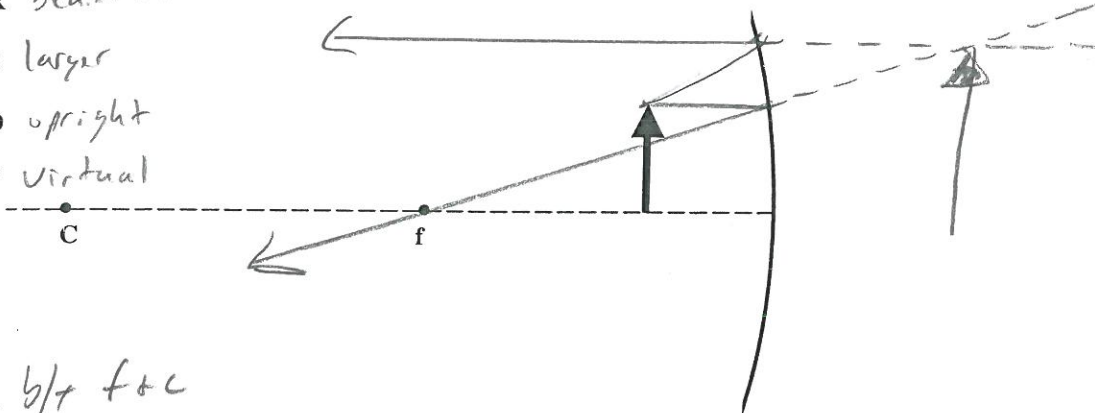
In the drawings on this and the following pages, the arrows represent objects in front of either concave or convex mirrors.

- Make ray diagrams to locate the corresponding images. Draw the image in as an arrow.
- For each image, indicate the:
  - Region of the image, R (behind mirror, between  $f$  and  $C$ , at  $C$ , beyond  $C$ )
  - Relative size, S (smaller, same, larger)
  - Orientation, O (upright or inverted)
  - Type, T (real or virtual)

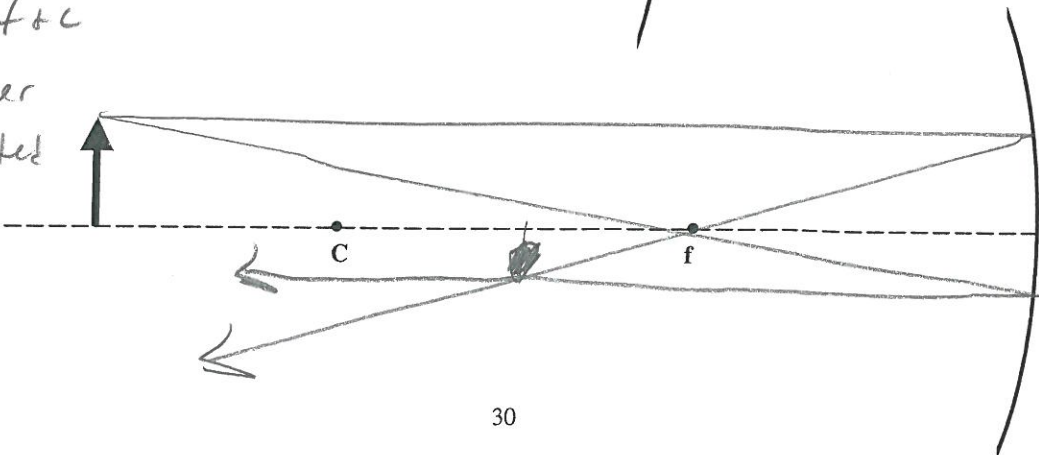
R beyond c  
S larger  
O inverted  
T real



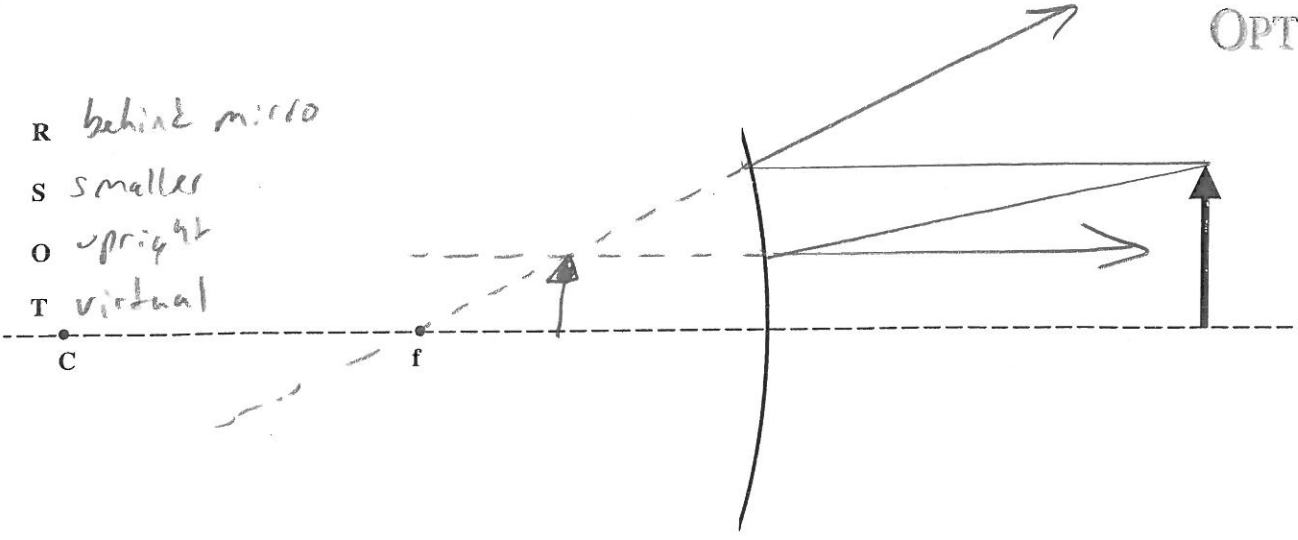
R behind mirror  
S larger  
O upright  
T virtual



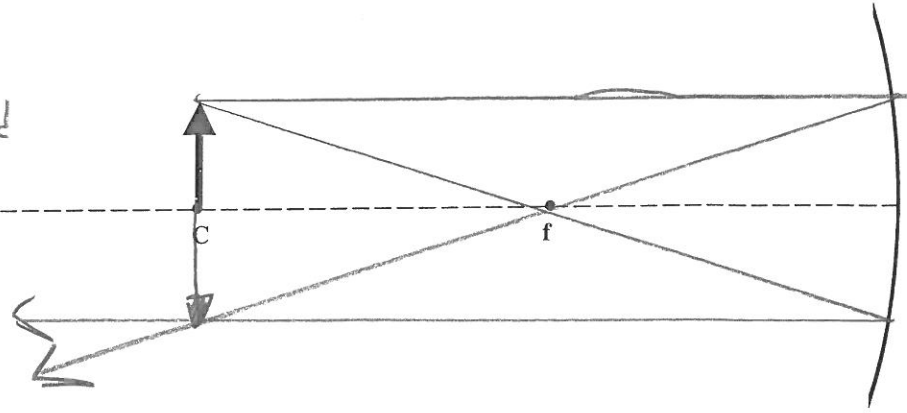
R b/t f & c  
S smaller  
O inverted  
T real



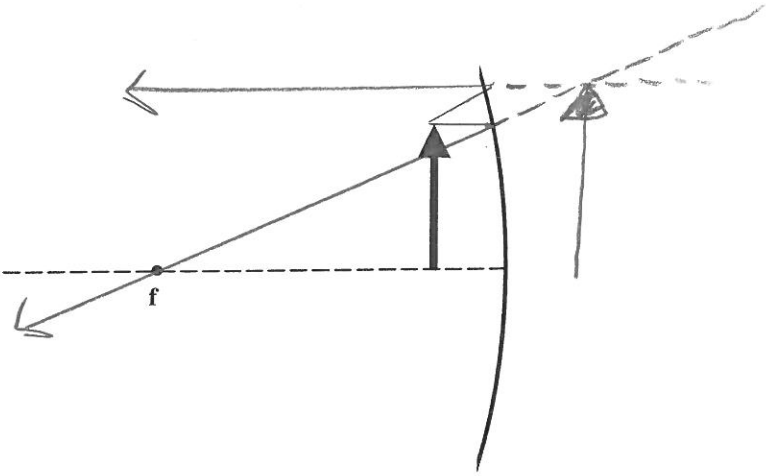
R behind mirror  
S smaller  
O upright  
T virtual



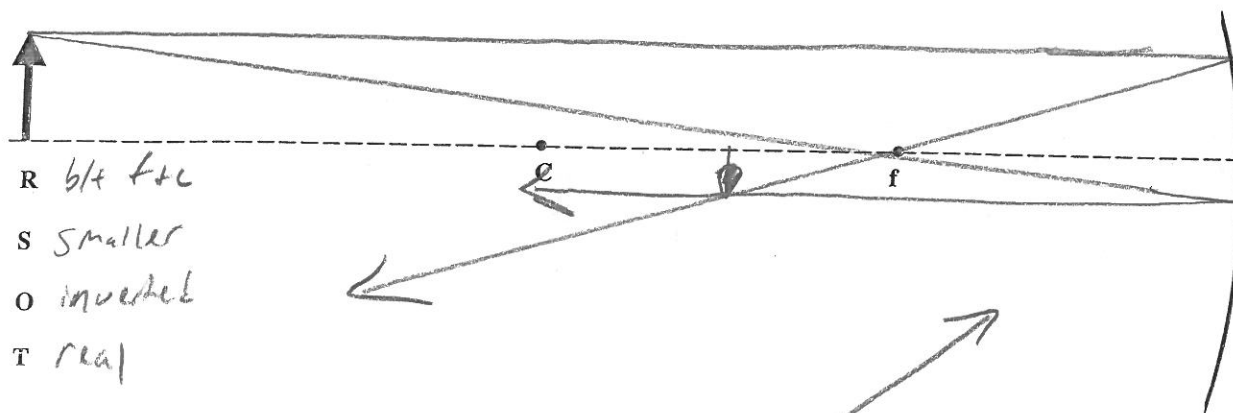
R @ C  
S same  
O inverted  
T real



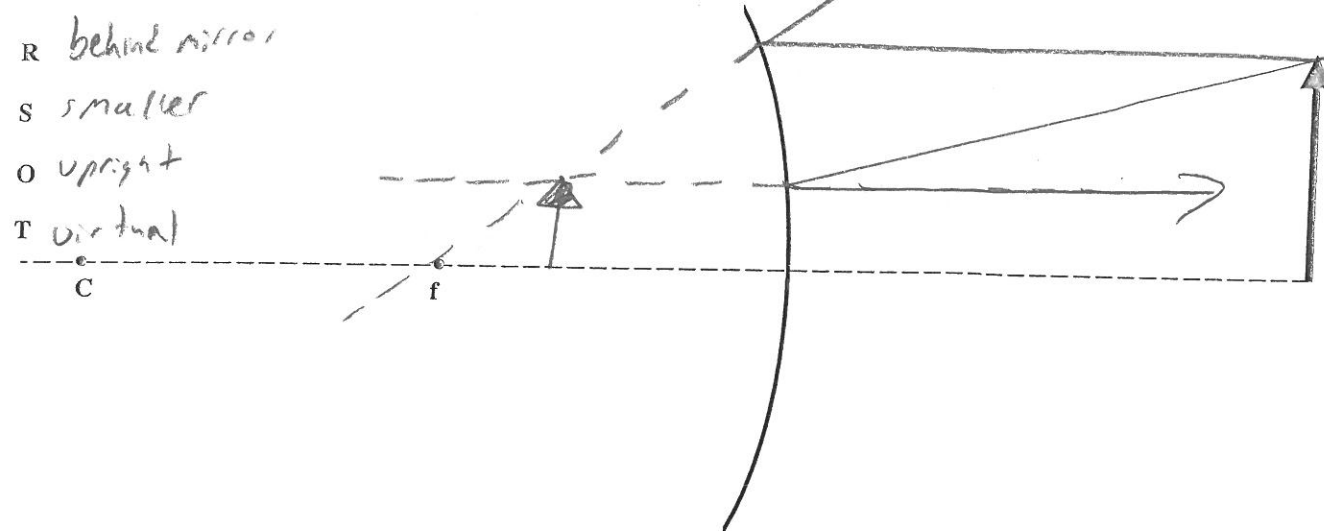
R behind mirror  
S larger  
O upright  
T virtual



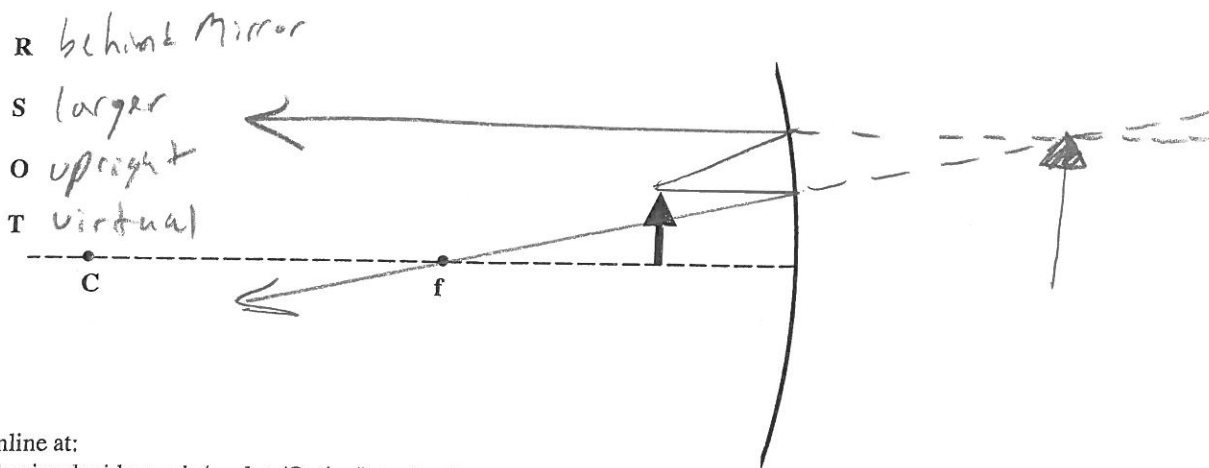
# OPTICS



R b/t  $f$  &  $c$   
 S smaller  
 O inverted  
 T real



R behind mirror  
 S smaller  
 O upright  
 T virtual



R behind mirror  
 S larger  
 O upright  
 T virtual

Try these online at:

<http://webphysics.davidson.edu/applets/Optics/intro.html>

or

<http://www.phy.ntnu.edu.tw/ntnujava/viewtopic.php?t=65>

## MIRROR IMAGE PROPERTIES SUMMARY

Type of mirror	Object Position	Image			
		Position	Relative Size	Orientation	Type
Plane	Anywhere	behind mirror	same	upright	virtual
C O N C A V E	Vertex to Focus	behind mirror	larger	upright	virtual
	Focus to Center of Curvature	beyond C	larger	inverted	real
	Center of Curvature	@ C	same	inverted	real
	Beyond Center of Curvature	b/t F & C	smaller	inverted	real
Convex	Anywhere	behind mirror	smaller	upright	virtual