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
S larger
O upright
T real
```

```
R behind mirror
S larger
O upright
T virtual
```

```
R f to C
S smaller
O inverted
T real
```
Optics

behind mirror
smaller
upright
virtual

same
inverted
real

behind mirror
larger
upright
virtual
## Mirror Image Properties Summary

<table>
<thead>
<tr>
<th>Type of mirror</th>
<th>Object Position</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Position</td>
</tr>
<tr>
<td>Plane</td>
<td>Anywhere</td>
<td>behind mirror</td>
</tr>
<tr>
<td>C</td>
<td>Vertex to Focus</td>
<td>behind mirror</td>
</tr>
<tr>
<td>O</td>
<td>Focus to Center of Curvature</td>
<td>beyond</td>
</tr>
<tr>
<td>N</td>
<td>Center of Curvature</td>
<td>@ C</td>
</tr>
<tr>
<td>C</td>
<td>Beyond Center of Curvature</td>
<td>beyond F &amp; c</td>
</tr>
<tr>
<td>Convex</td>
<td>Anywhere</td>
<td>behind mirror</td>
</tr>
</tbody>
</table>