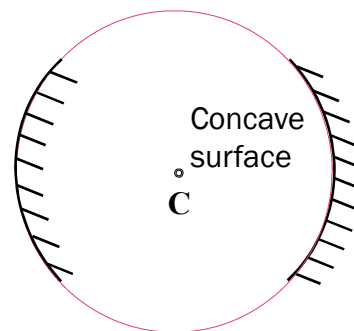


Convex Mirrors & Magnification

From Last Time...

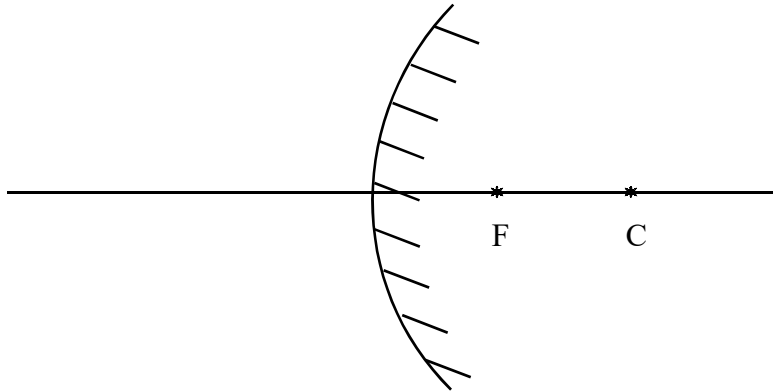
- ▶ **Convex Mirrors**
- ▶ **Reflective surface curves out**

Convex surface

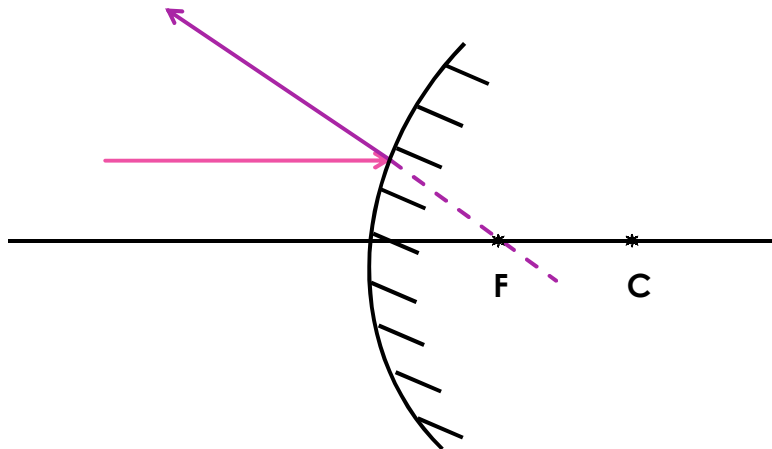


Convex Diagram

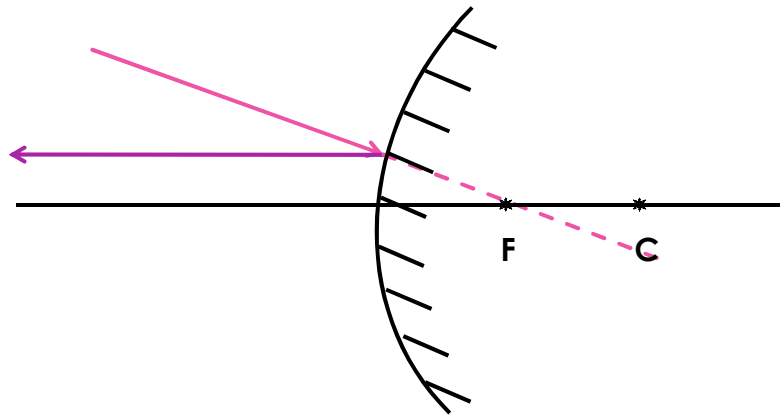
► Note: C & F is behind a convex mirror



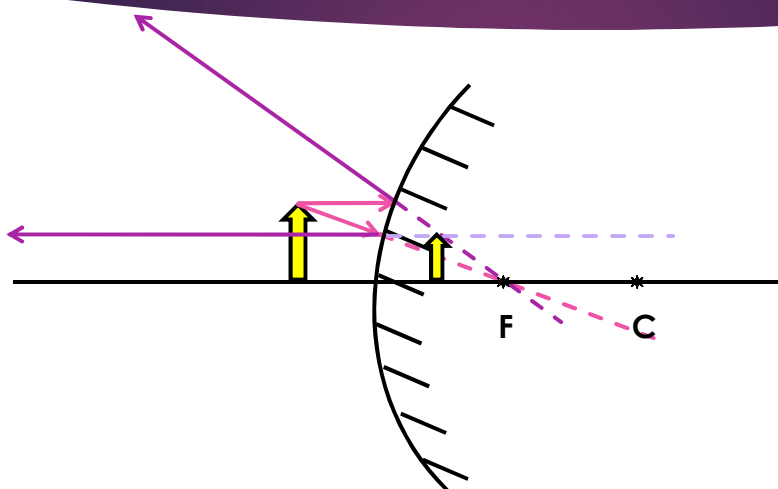
Rays in a Convex Mirror



Rays in a Convex Mirror



Location in Convex Mirror



S	Smaller
A	Upright
L	Behind Mirror
T	Virtual

Practice Questions

- ▶ Complete the first three ray diagrams
- ▶ Answer the question:
 - ▶ What happens as the object moves closer to the mirror?

Magnification

- ▶ Magnification can be determined two ways:
 - ▶ By comparing DISTANCE of the image & object (from the mirror/lense), OR
 - ▶ By comparing the HEIGHT of the image and object (wrt the P.A.)

The diagram illustrates the magnification formula $m = \frac{h_i}{h_o} = \frac{-d_i}{d_o}$. It features a central equation box with four labels connected by lines to its components: 'Image Height (m)' points to h_i , 'Image Distance (m)' points to $-d_i$, 'Object Height (m)' points to h_o , and 'Object Distance (m)' points to d_o . Additionally, a label 'Magnification (no units)' points to the variable m on the left side of the equation.

Homework

- ▶ Finish ALL ray diagrams for curved mirrors you have been assigned
- ▶ **Magnification Practice Q's:** Do all 12 practice problems on pp424-425