Reflection of Light from Spherical Mirrors

Adam Kelly

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There are two types of spherical mirror; Concave and Convex.

DEFINITION

Concave Mirror.

A mirror 'caves in' at the center

DEFINITION

Convex Mirror.

A concave mirror 'bulges out' at the center

0.1 Real and Virtual Images

DEFINITION

Real Image.

An image formed by the actual intersection of light rays. A real image can be located on a screen.

DEFINITION

Virtual Image.

An image formed by the apparent *intersection of light rays. A virtual image cannot be formed on a screen (because there are no actual rays to intersect behind the mirror).*

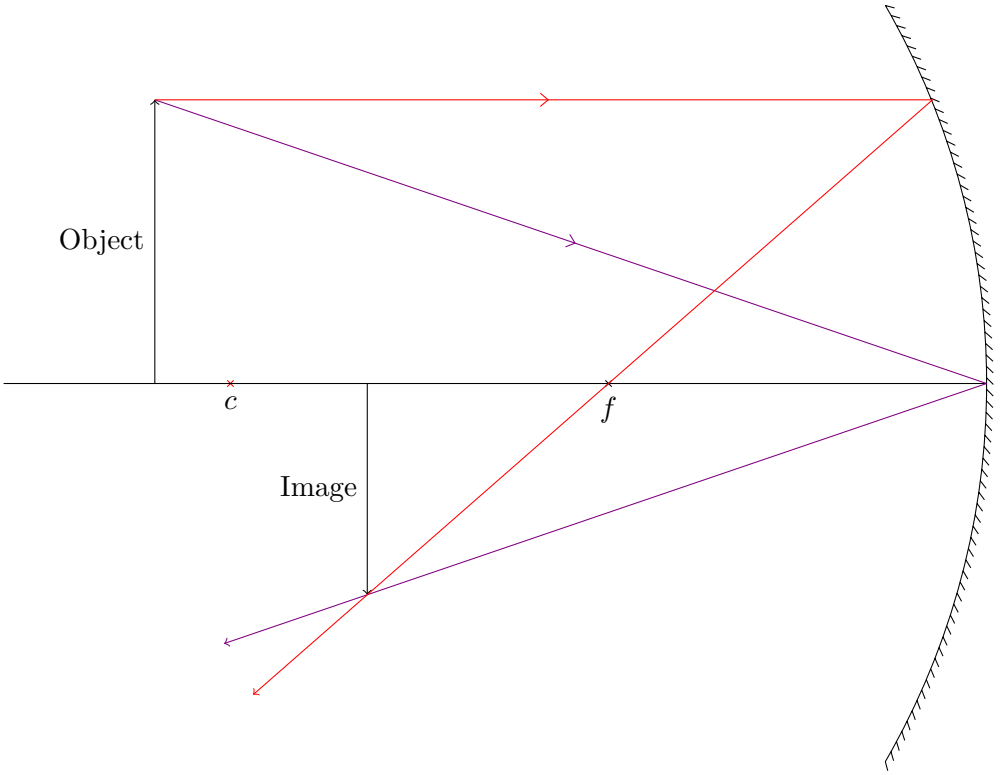

Figure 1: When the object is behind the center (c), the image is between c and the focus (f). The image is diminished. It is also real, and by extension inverted.

There is a relation

$$\frac{1}{v} + \frac{1}{u} = \frac{1}{f}$$

And

$$m = \frac{\text{object height}}{\text{image height}} = \frac{v}{u}$$