

Vocabulary: Ray Tracing (Mirrors)



Vocabulary

- Concave mirror – a mirror that curves inward.
 - The bowl of a spoon is an example of a concave mirror.
 - A concave mirror also is called a “converging mirror” because it causes *reflected* light rays to converge at a point.
- Convex mirror – a mirror that curves outward.
 - The back of a spoon is an example of a convex mirror.
 - A convex mirror also is called a “diverging mirror” because it causes reflected light rays to spread out.
- Focal point – the point at which parallel light rays converge after reflecting off a mirror.
 - The *focal length* of a mirror is the distance between the focal point and the middle of the mirror.
 - A convex mirror does not cause light to converge but it does have a focal point. The focal point of a convex mirror is the point from which originally parallel light rays appear to be emanating after reflecting off the mirror.
- Magnification – the ratio of image size to object size.
 - For example, if an object is 2.8 cm high and the image has a height of 5.6 cm, the magnification is 2.0.
- Real image – an image that forms where light rays converge.
 - If a screen is placed at the location of a real image, the image will be visible on the screen.
 - Real images are inverted and located on the same side of a mirror as the object.
- Reflect – to bounce back from a surface.
 - When electromagnetic waves strike a smooth, non-absorbing surface, they reflect from the surface at the same angle at which they struck the surface.
 - In most mirrors, light is reflected off a thin coating of polished aluminum beneath a sheet of protective glass.
- Virtual image – an image that is visible to an observer only when the observer looks into a mirror or lens.
 - No light rays are focused onto the virtual image. Therefore, a virtual image cannot be projected onto a screen as a real image could.
 - Virtual images are upright and located on the opposite side of a mirror from the object.