# Cheatography

# mirror and lenses Cheat Sheet by sundrew via cheatography.com/172300/cs/36216/

### Definitions

Light is an Electromagnetic Wave that doesn't require a medium and is transferred by radiation.

**Radiation**: a method of energy transfer that does not require a medium. It can travel through a vacuum

**Wavelength** - distance between two like points on the wave.

**Amplitude** - the height of the wave compared to undisturbed state.

**Period** - the amount of time required for one wavelength to pass.

**Frequency** - the number of waves passing in a given amount of time.

### Object in relation to (C) and (F)



# Definition (2)

**Convex mirrors** – mirrors that reflect outwards with a bulge – focal point is behind the mirror and is **always** *negative* 

Concave mirrors – mirrors that reflect inward

• The principal axis – the line that passes through the center of curvature of the mirror (C) and is normal to the center of the mirror.

• The focal point (F) – the point on the central axis through which reflected rays pass when the incident rays are parallel to and near the principal axis.

• focal length – the distance between the vertex (V) of a mirror and the focal point.

Real images are formed when the light rays intersect at the image, and is inverted to the object(can be projected)

Virtual images are formed when the light rays do not intersect at the image, and is upright to the object

C = 2F

## LOST - image description

Location
Orientaion
Size
Туре
or S: Smaller A: Upright L: Behind the mirror

or S: Smaller A: Upright L: Behind the mirror T: Virtual (SALT)

#### The Law of Reflection

•Incident ray – ray of light that travels from a light source towards a surface.

•Normal – the line that is perpendicular to a surface where a ray of light meets the surface.

• Angle of incidence – the angle between the incident ray and the normal in a ray diagram.

•Reflected ray – the ray that begins at the point where the incident ray and the normal meet (where the incident ray hits the surface). →The angle of reflection is the angle between the reflected ray and the normal in a ray diagram.

•Plane mirror – a mirror with a flat, reflective surface.

# By sundrew

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