**Focal Point**

**Focal Point: is the point on both sides of a converging where light that is traveling parallel to the focal point meets.**

**Equation:**

**1/P + 1/*q* = 1/f**

**P = object distance, *q* = image distance**

**F = focal point.**

**Negative and positive signs are given to each length to indicate where they are relative to each other.**

**A positive Object distance (P) when the object is in front of the lens.**

**A negative Object distance (P) is when the object is behind the lens.**

**A positive Image distance (*q*) is when it is behind the lens.**

**A negative Image distance (*q*) is when it is in front of the lens.**

**A positive focal point indicates that a real image was formed (converging light).**

**A negative focal point indicates that a virtual image was formed (diverging light).**