## Review for Light, Wirrors and Lenses

MIRRORS: reflect

LIGHT:

 $c = f \times \lambda$ 

(#3b)

 $c = 3 \times 10^8 \text{ m/s}$ f = frequency (Hz)

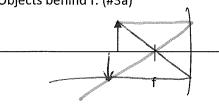
#1, 2

**CONCAVE MIRROR**: caves inward

light

Objects behind f: (#3a)

Objects in front of f: (#6)



inverted real

Mirror Sign Conventions:

f + = concave / convex

f-= concave / convex

 $q + \neq in front / behind$ mirror

CONVEX MIRROR: bulges toward

q -= in front / behind mirror

hi + = upright / inverted

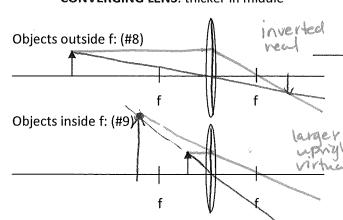
hi -= upright / inverted

**Equations**: (#4, 5)

LENSES: refract

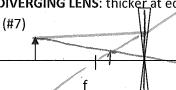
light

**CONVERGING LENS:** thicker in middle



Equations: (#10) Same as mirrors

DIVERGING LENS: thicker\_at edges



**Lens Sign Conventions:** 

f + = converging / diverging

f -= converging / diverging

q + = object and image on side of lens

q - = object and image on Sameside of lens

hi + = upright | inverted

hi - = upright / inverted