

LENSES

Lens	d_i vs d_o	f	d_o vs f	Image	d_o	d_i	h_i	h_i vs h_o	m	P
Convex (Converging)	$d_i > d_o$	+	$d_o > f$	real & on opposite side of object	+	+	- (inverted)	$h_i < h_o$	-	+
			$d_o < f$	virtual & on same side as object	-	-	+ (upright)	$h_i > h_o$	+ and >1	+
Concave (Diverging)	$d_i < d_o$	-	any	virtual & on same side as object	-	-	+ (upright)	$h_i < h_o$	+ and <1	-

MIRRORS

Mirror	f	d_o vs f	Image	d_o	d_i	h_i	h_i vs h_o	m
Plane	N/A	any	virtual & on opposite side of object	+	-	+ (upright)	$h_i = h_o$	+
Convex (Diverging)	-	any	virtual & on opposite side of object	+	-	+ (upright)	$h_i < h_o$	+ and <1
Concave (Converging)	+	$d_o > f$	real & on same side as object	+	+	+ (but inverted)	$h_i > h_o$	- and >1
		$d_o < f$	virtual & on opposite side of object	+	-	+ (upright)	$h_i > h_o$	+