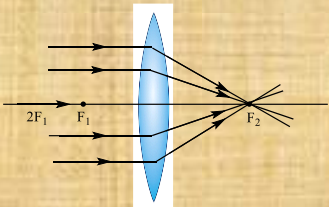
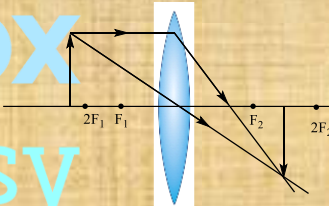
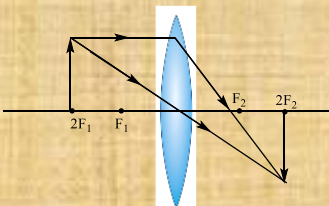
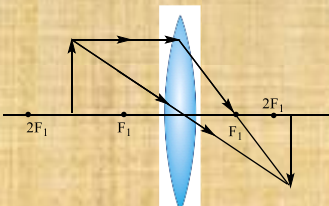
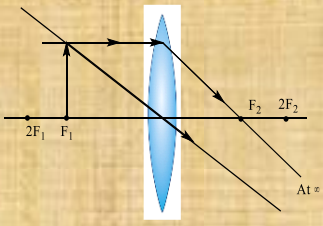


Chapter 04

REFRACTION OF LIGHT AT CURVED SURFACES

CONVEX / CONVERGING LENS:

Position of object	Position of image	Magnification sign	Real / Virtual image	Inverted Erect image	Ray Diagram
At ∞ $u \gg f$	At F_2 $V = \infty$ and -ve	$M \ll 1$ & -ve	Real	Inverted	
Beyond $2F_1$ $u > 2f$	B/W F_2 & $2F_2$ $V < r$ & -ve	$M < 1$ & -ve	Real	Inverted	
At $2F_1$ $u = 2f$	At $2F_2$ $V = 2f$ & -ve	$M = 1$ & -ve	Real	Inverted	
B/W $2F_1$ & F_1 $u < 2f$ $u > f$	Beyond $2f_2$ $V > 2f$ & -ve	$M > 1$ & -ve	Real	Inverted	

At F_1 $u=f$	At ∞ $V = \infty$ & -ve	$M \gg 1$ & -ve	Real	Inverted	
B/W F_1 & 'O' (Optical centre) $u < f$	Beyond $2f_1$ $v > 2f$ & -ve	$M > 1$ But +ve	Virtual	Erect	