Class-X(Concept Map)

Position of the object	Position of the image	Size of the image	Nature of the image
At infinity	At the focus F	Highly diminished	Real and inverted
Beyond C	Between F and C	Diminished	Real and inverted
At C	At C	Same size	Real and inverted
Between F and C	Beyond C	Magnified	Real and inverted
At F	At infinity	Highly magnified	Real and inverted
Between optical centre and F	Behind the mirror	Magnified	Virtual and erect

m = positive
= virtual & erect image
m = negative=
real & inverted image

v = image distance
u = object distance
f = focal length

Measured in diopter(D)

$P = \frac{1}{f}$

$m = \frac{v}{u} = \frac{h_2}{h_1}$

$\frac{1}{v} - \frac{1}{u} = \frac{1}{f}$

Position of the object	Position of the image	Size of the image	Nature of the image
At infinity	At F	Highly diminished	Virtual and erect
Between O and #	Between O and F	Diminished	Virtual and erect

SPHERICAL MIRROR

Power & magnification

mirror formula

Concave mirror

Image formation

Uses:torches, search light

Ray diagram

Sign convention

Laws of reflection

•Angle of incidence= angle of reflection
•incident,refracted ray & normal lie in same plane

Convex mirror

Image formation

Uses:Rear view mirror

Ray diagram