Cartesian Sign Convention

(i) All the distances are measured from the Pole of the mirror

(ii) All the distances in the direction of the incident ray are taken +ve

f = focal length of the mirror
v = distance between the pole and the image
u = distance between the pole and the object

Mirror Formula

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

$$\text{Magnification} = \frac{+v}{u} = \frac{\text{size of image (q)}}{\text{size of object (p)}}$$

Focal length of concave ~~mirror~~ lense is always taken -ve
Focal length of convex ~~mirror~~ lens is always +ve
Object distance for both the mirrors is always taken -ve.

Real image distance is always +ve, Vertical image distance is always ⊕ve
Size of the object is always taken +ve
Size of Real image is -ve
Height of virtual image is taken +ve