**1.**Python Program for focal length of a spherical mirror.****

def focal\_length\_concave(R):

return R / 2

def focal\_length\_convex(R):

return - ( R/ 2 )

R = 30 ;

print("Focal length of spherical concave mirror is :",

focal\_length\_concave(R)," units")

print("Focal length of spherical convex mirror is : ",

focal\_length\_convex(R)," units")

**OUTPUT**

