## Answer on Question \#46574, Physics, Other

Task: The image of an object which is between the concave mirror's reflecting surface and its principal focus is.

- in front of the mirror erect real and diminished
- behind the mirror inverted real and diminished
- in front of the mirror erect virtual and enlarged
- behind the mirror erect virtual and enlarged


## Answer:

When the Object is between the Pole and the Focus :
Considering a ray of light which is parallel to the incident ray and another ray which is passing through the center of curvature. The ray which is passing through the center of curvature retraces its path and the other ray which is parallel to the principal axis after reflection passes through the focus. These rays appear to meet behind the mirror when the reflected rays are extended backwards. The image is virtual, erect and magnified.


The image of an object behind the mirror erect virtual and enlarged

