

Answer on Question#52010 - Physics - Optics

Which type of nature shown by concave and convex lens when placed in

- 1) medium of high refractive index than lens
- 2) medium of low refractive index than lens

Solution:

Since the focal length depend on the difference between refractive index of the lens and refractive index of the medium,

- 1) when the lens is placed in the medium of high refractive index then lens its focal length will change its sign. It means that concave lens will become convex and convex lens will become concave.
- 2) when the lens is placed in the medium of low refractive index then lens its focal length will change but its sign will remain the same. It means that concave lens will remain concave and convex lens will remain convex but with focal lengths different from the initial.