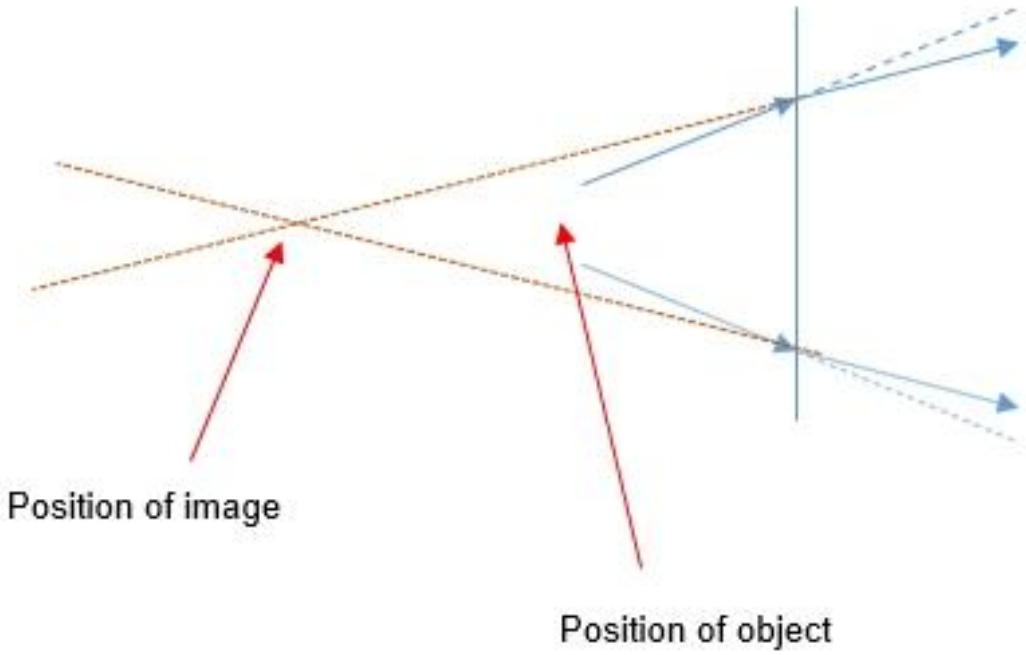
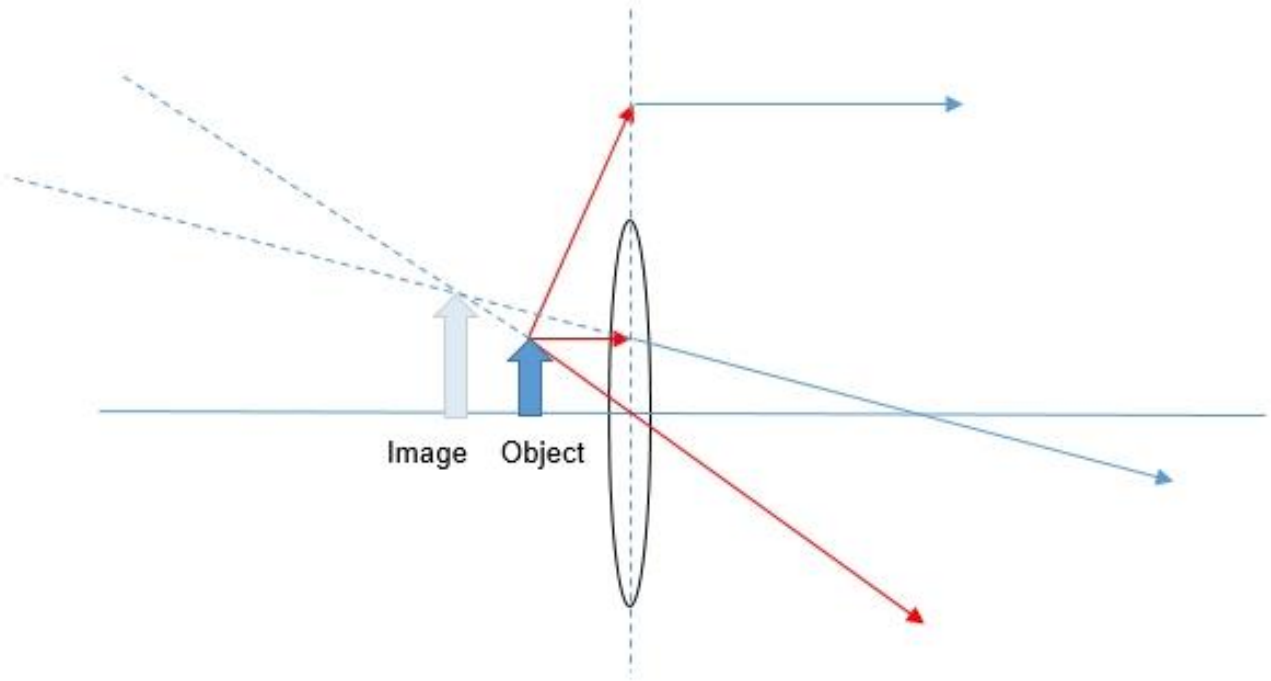
PENCILTUTOR SCHOOL (PTE) LTD.
CO. REG. NO. 200601708E
BLK 102, #02-135
YISHUN AVENUE 5
SINGAPORE 760102

In Q26, options A and D must be excluded as the refracted rays are diverging.

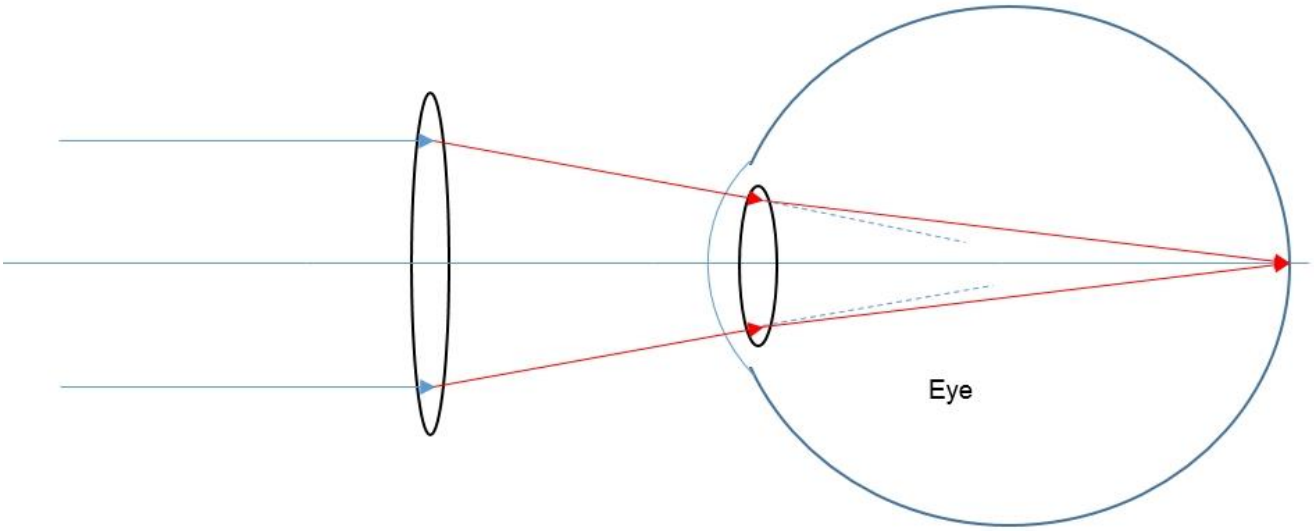
In both options B and C, the refracted ray bends towards the normal of the surface to the lens. For option B, according to the ray diagram, the image must form on the same side as the object.



Diverging lens always produces an image on the same side as the object. A converging lens produces an image on the same side as the object only when the object is placed in front of the focal point. However a ray that approaches a converging lens as shown in option B needs to be parallel to the principal axis or converge towards the principal focus.



Since the emergent ray from the lens is neither parallel to the principal axis nor converging to a point on the other side of the object, B cannot be a converging lens. Thus C is the converging lens where an image is formed on the other side. Option C shows the typical ray diagram for a two lens system. A common application of such a system can be found in hypermetropia (i.e longsightedness) lens correction.



A closer look at the lens of the eye.

PENCILTUTOR SCHOOL (PTE) LTD.
CO. REG. NO. 200601708E
BLK 102, #02-135
YISHUN AVENUE 5
SINGAPORE 760102