Answer on question #56351, Physics / Optics

Question Find the distance at which an object should be placed in front of convex lens of focal length 10 cm to obtain an image of double its size

Solution Magnification of lens is

$$M = \frac{f}{f - d_o}$$

where d_o is distance to object. So we have $M = 2$. Hence,

$$2f - 2d_o = f$$

$$d_o = \frac{3}{2}f = \frac{3}{2} \cdot 10 = 15\,cm$$