

LENSES

FORMULAE:

(1) **Linear magnification:**

$$\begin{aligned}\text{Magnification} &= \frac{\text{Height of the image}}{\text{Height of the object}} \\ &= \frac{\text{Image distance}}{\text{Object distance}}\end{aligned}$$

(2) **Power of the lens:**

$$\text{Power of a lens} = \frac{1}{\text{focal length of the lens (in metres)}}$$

(3) **Magnifying power of a simple microscope:**

$$\text{Magnifying power} = \frac{\beta}{\alpha}$$

where: α = angle subtended by the object at the eye when the object is placed at the least distance of distinct vision.

β = angle subtended by the image at the eye.