

Instrumentos Ópticos

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Física

Óculos



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Vergência:

$$V = \frac{1}{f}$$

Medida em dioptrias e
distância focal em metros

$V > 0$ - Convergente

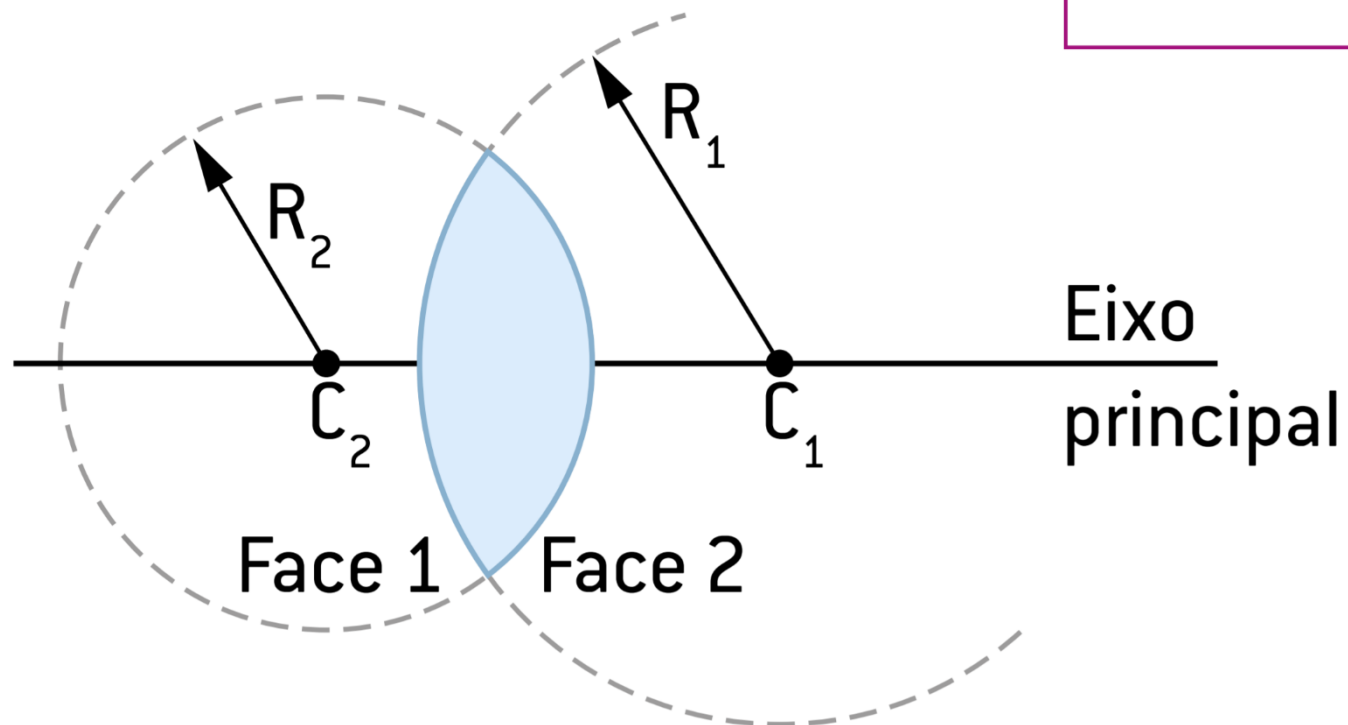
$V < 0$ - Divergente

Equação de Halley

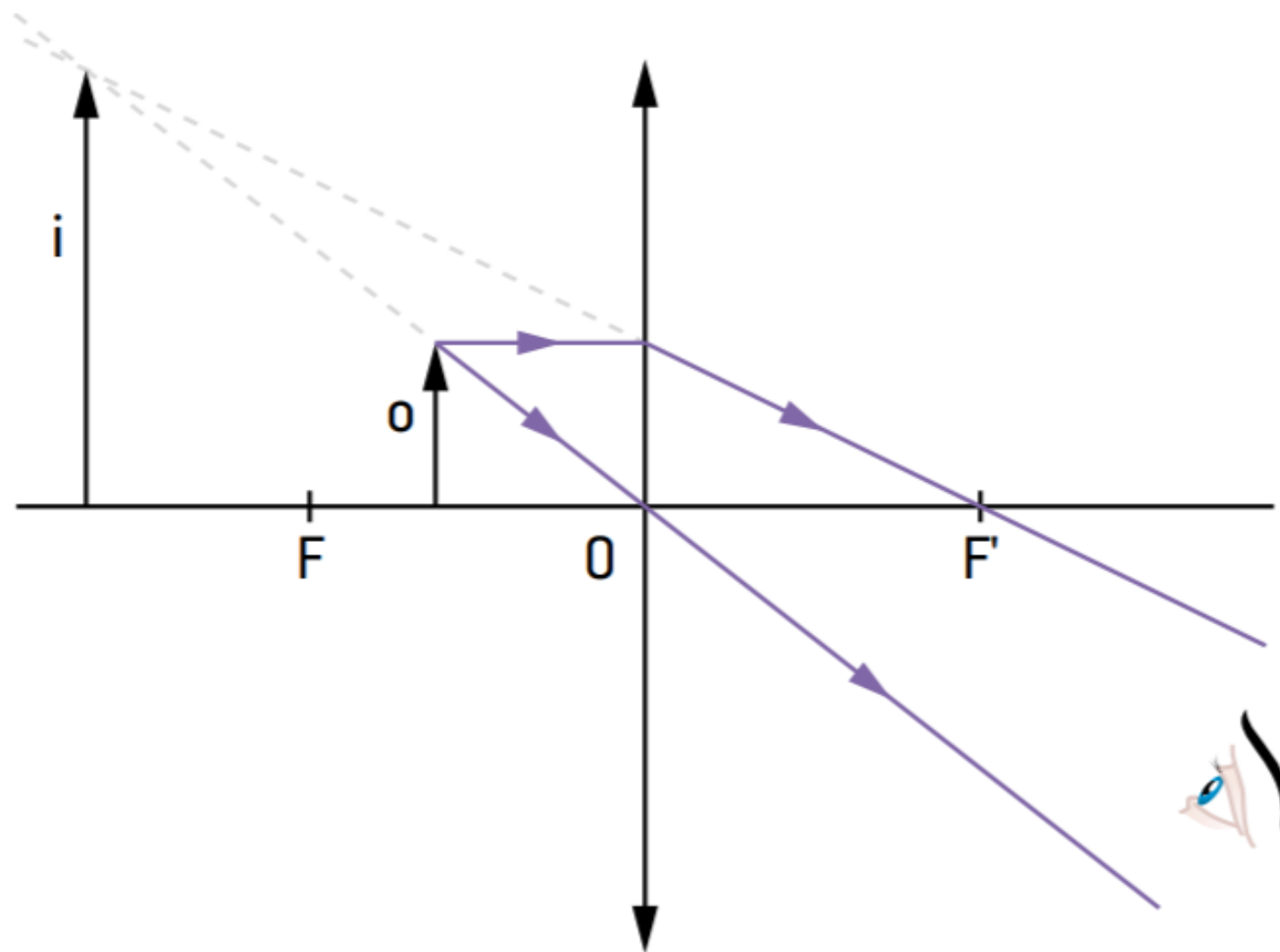
$$\frac{1}{f} = \left(\frac{n_{\text{lente}}}{n_{\text{meio}}} - 1 \right) \cdot \left(\frac{1}{R_1} + \frac{1}{R_2} \right)$$

Convenção de sinais

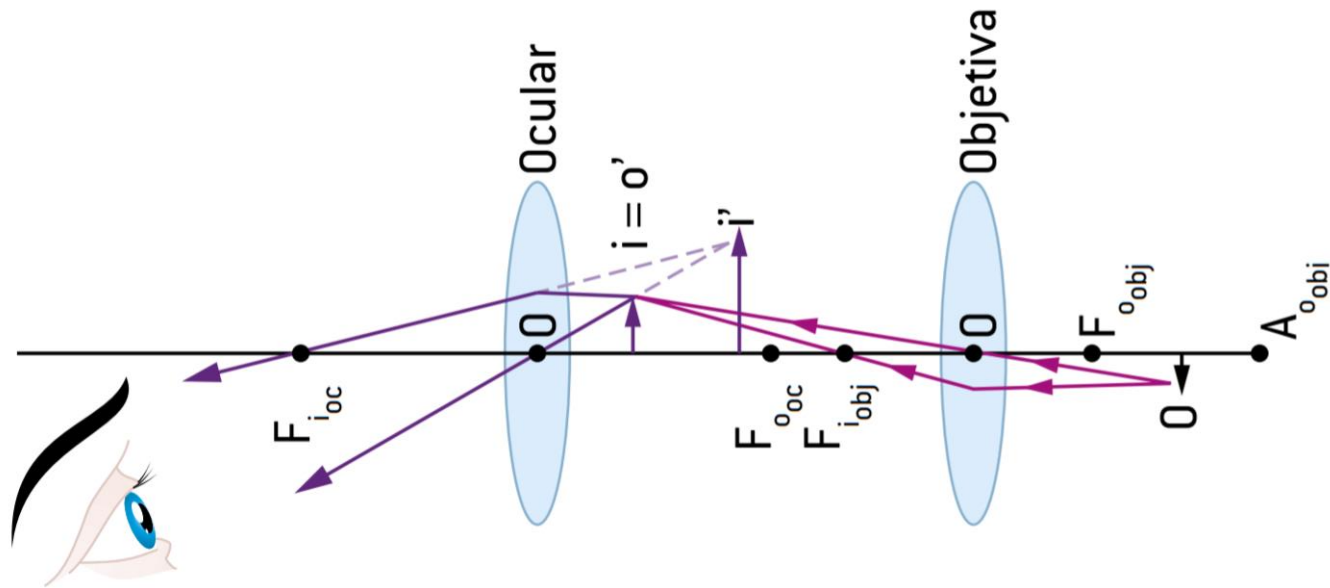
Lentes convergentes	$f > 0$
Lentes divergentes	$f < 0$
Face convexa	$R > 0$
Face côncava	$R < 0$



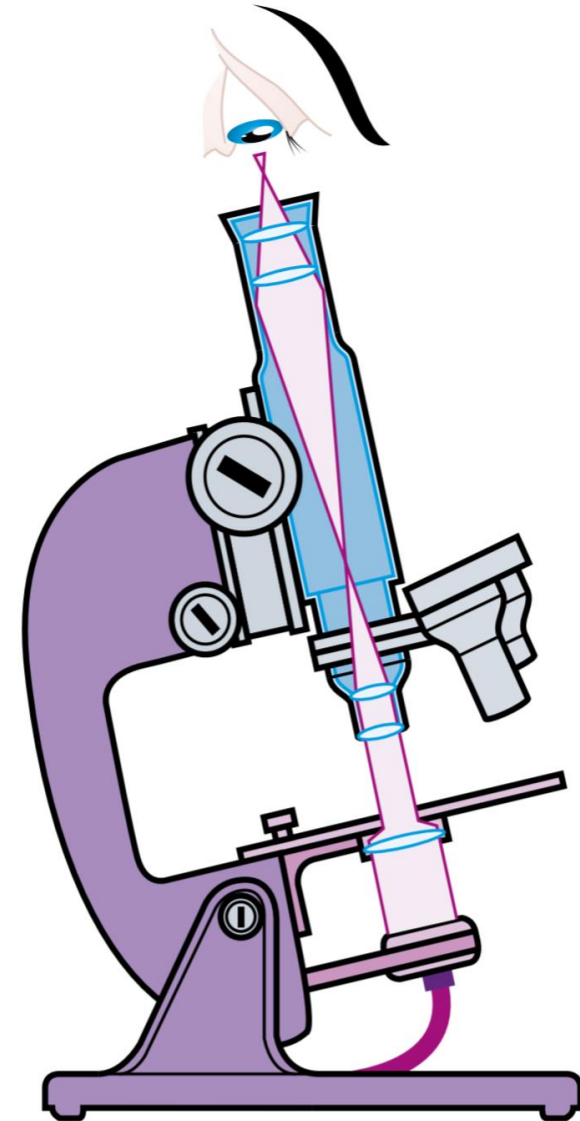
Lupa – microscópio simples



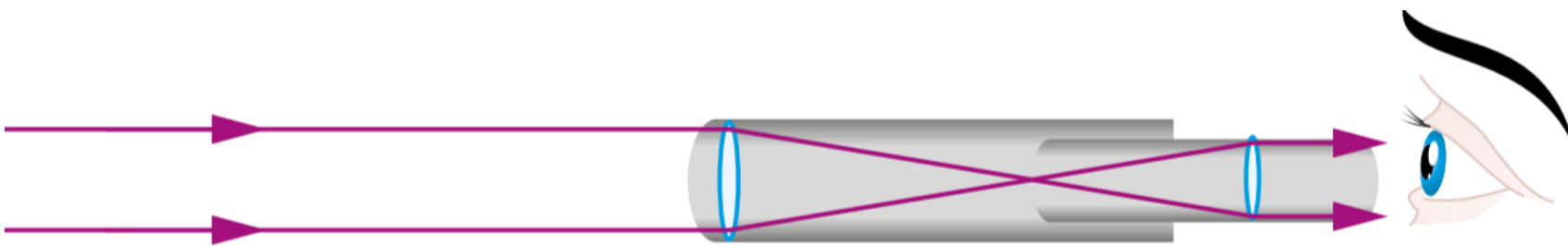
Microscópio Composto



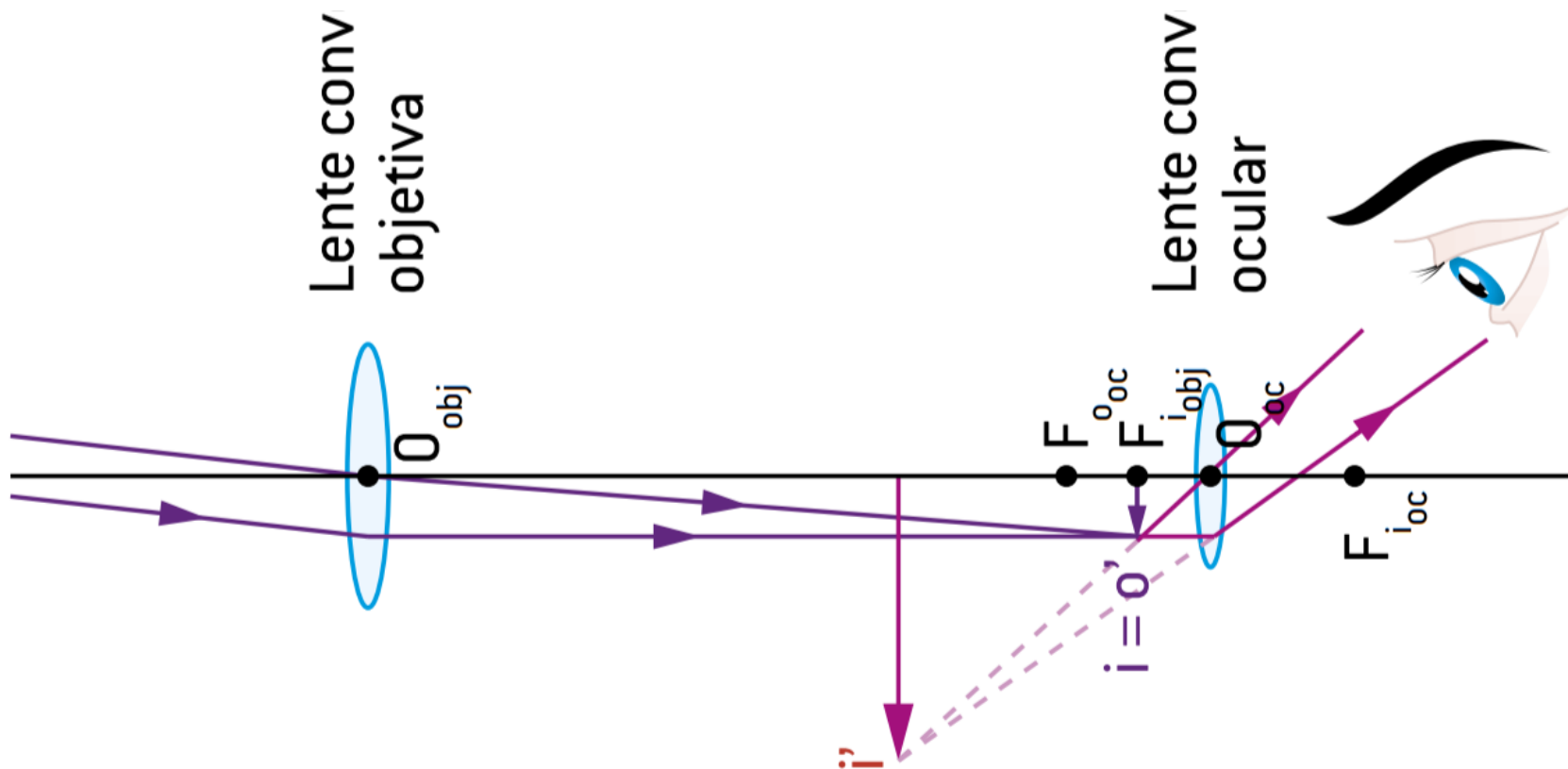
$$A = A_{ob} \cdot A_{oc}$$



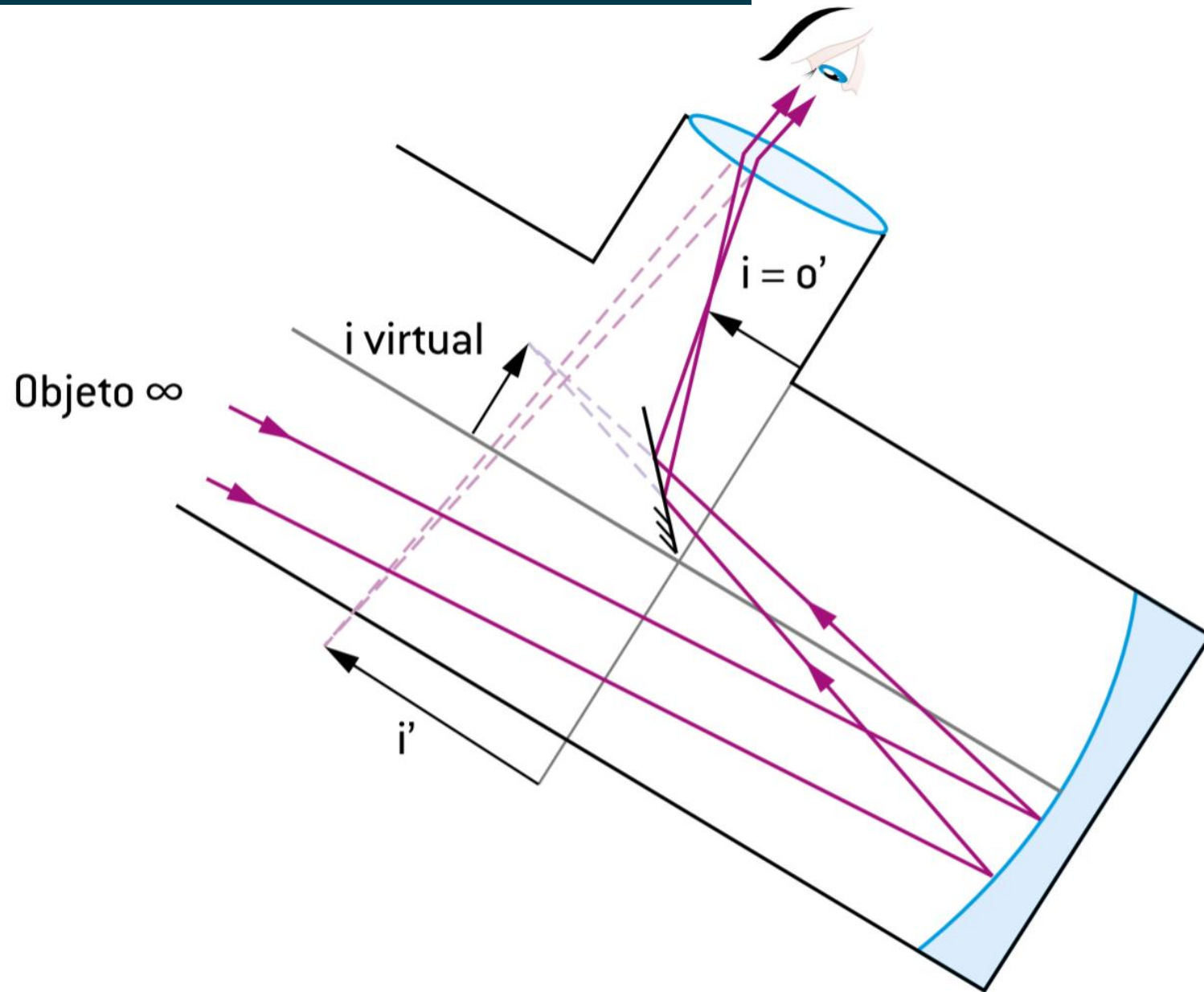
Telescópio Refrator (de Galileu)



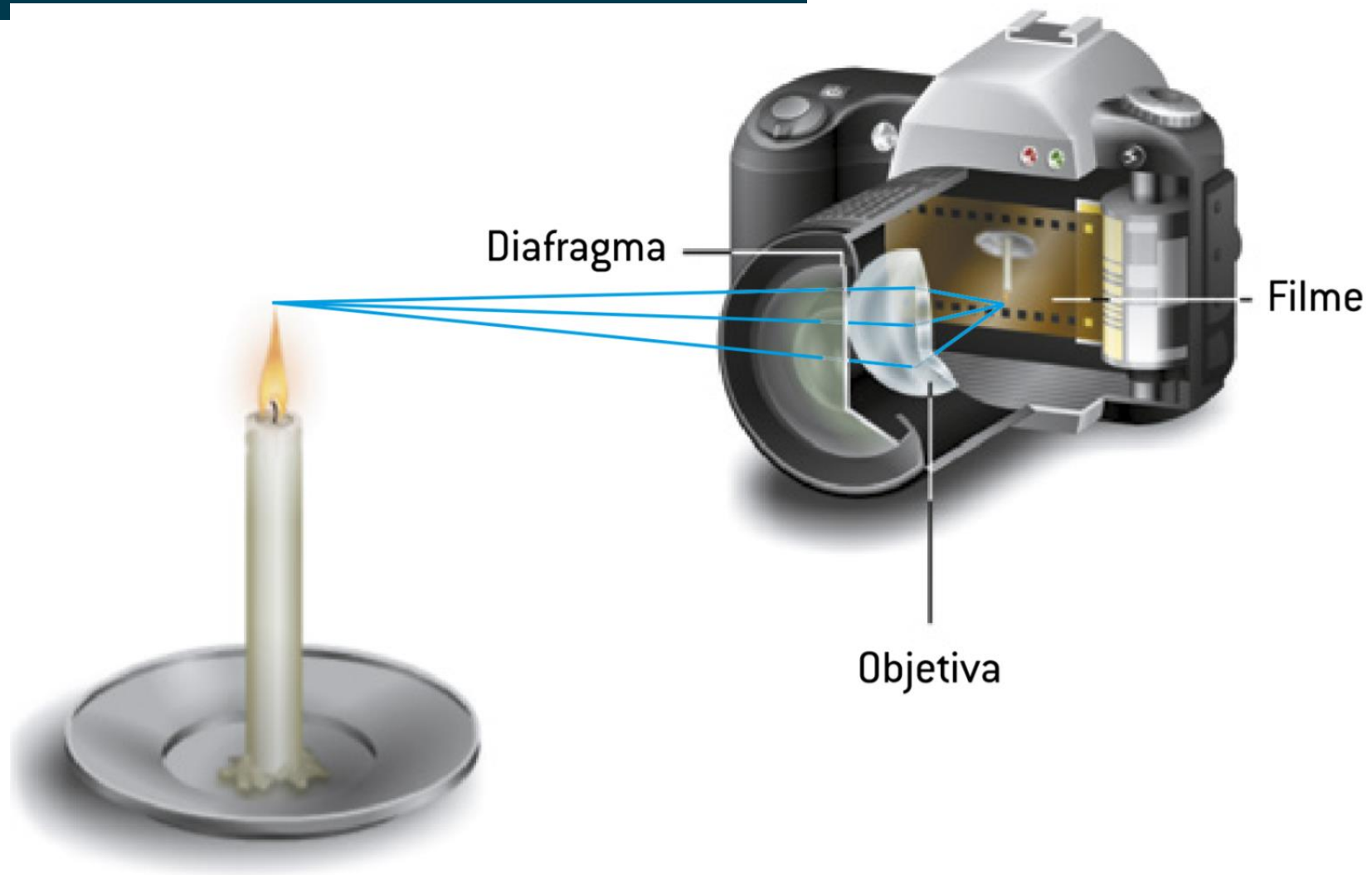
$$M = \frac{f_{ob}}{f_{oc}}$$



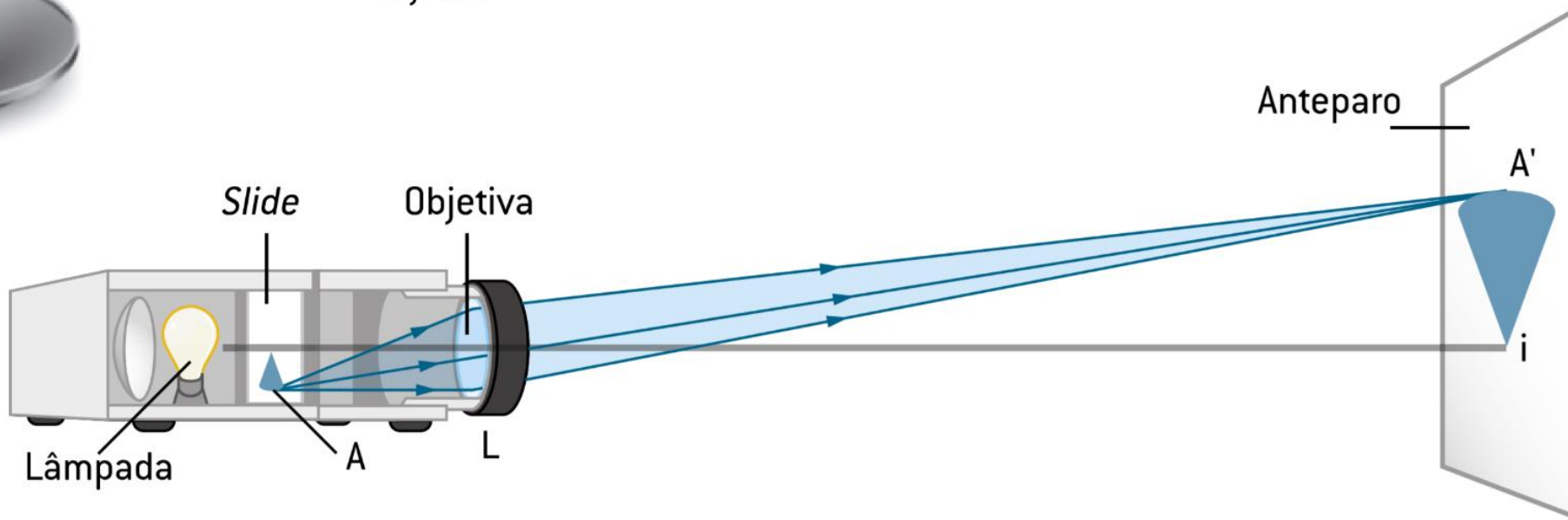
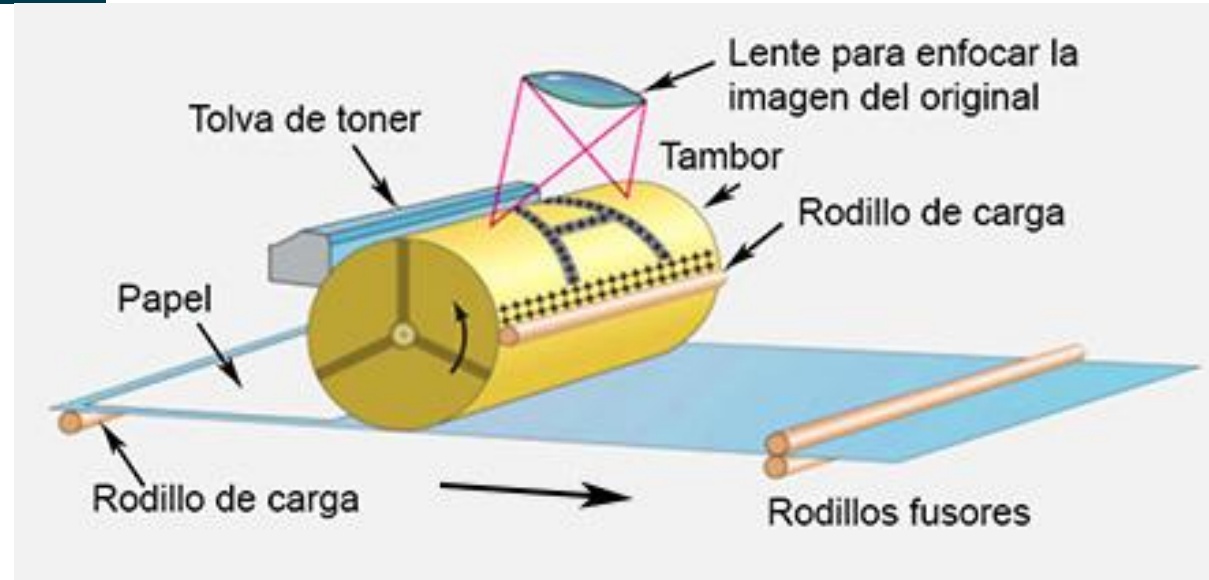
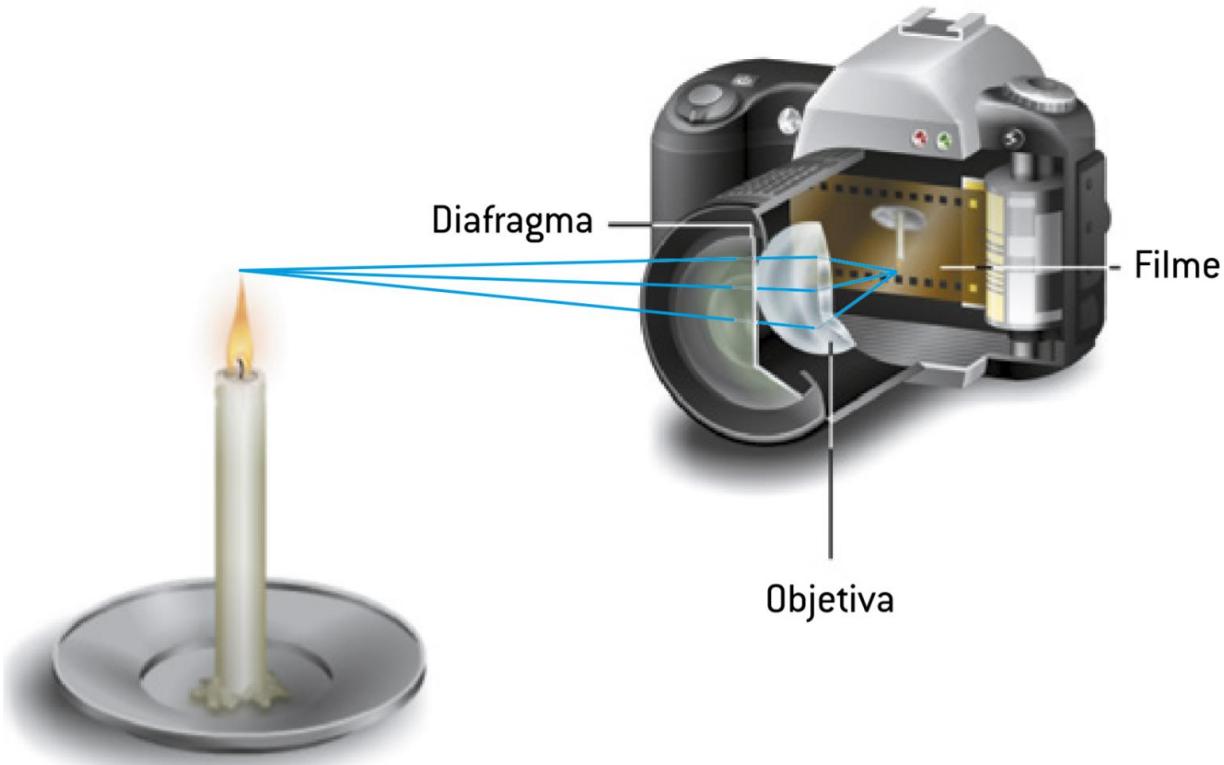
Telescópio Refletor (de Newton)



Máquina Fotográfica



Instrumentos de Projeção



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