

Lentes esféricas

III

Prof. Jadoski

Física

As palavras tem significado

$$\frac{1}{f} = \frac{1}{p} + \frac{1}{p'}$$



A

F

F

A

Projeta
uma imagem
5x menor

$$\frac{I}{O} = A = -\frac{p'}{p}$$

L. convergente
F positivo

$$A = -\frac{1}{5}$$

Escondendo informações

Lente de 5 “graus”

$p=60\text{cm}$

$p'=?$ $A=?$

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



A

F

F

A

$$5 = \frac{1}{f}$$

$$f = \frac{1}{5}$$

$$f=0,2\text{m}$$

$$f=20\text{cm}$$

Lentes justapostas

F1=10cm

F2=20cm

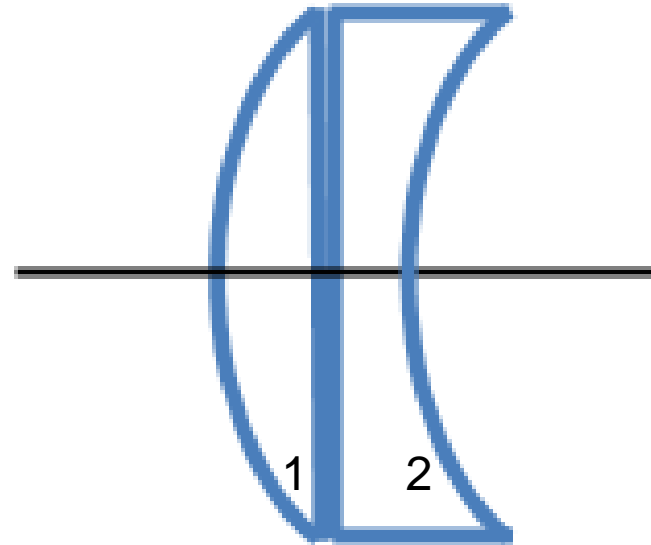
Fr=?

$$C_r = C_1 + C_2$$

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

$$\frac{1}{f_r} = \frac{1}{f_1} + \frac{1}{f_2}$$

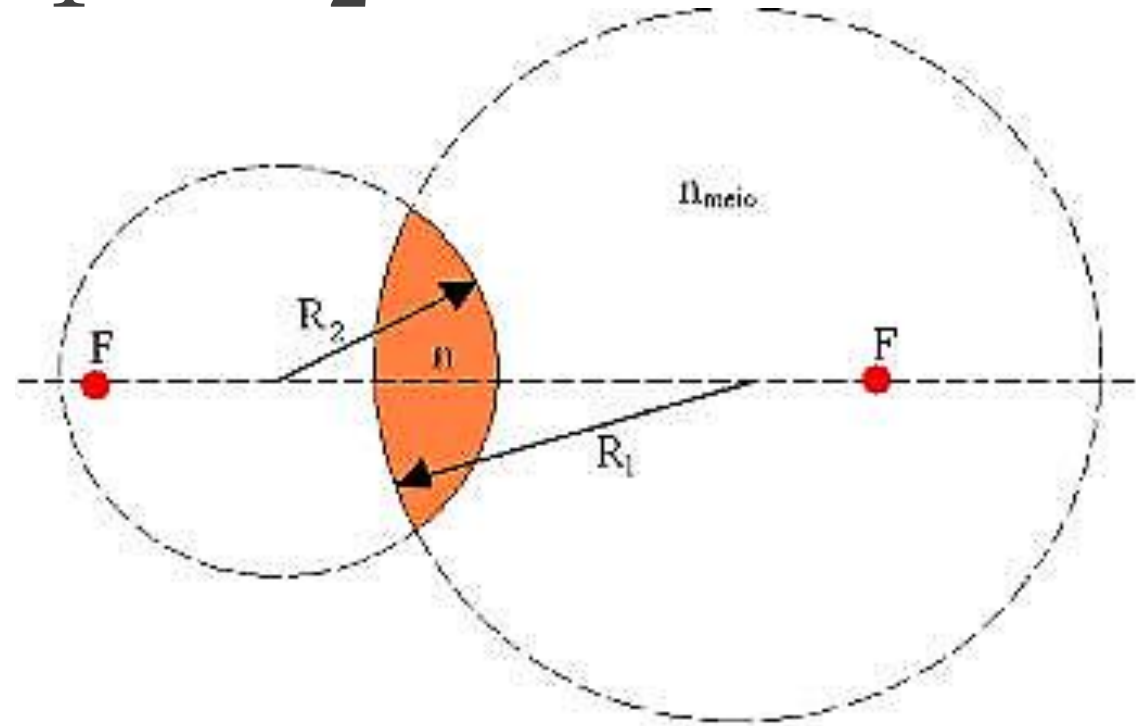
$$\frac{1}{f_r} = \frac{1}{+0,1} + \frac{1}{-0,2}$$



$$F_r = +0,2m(+20cm)$$

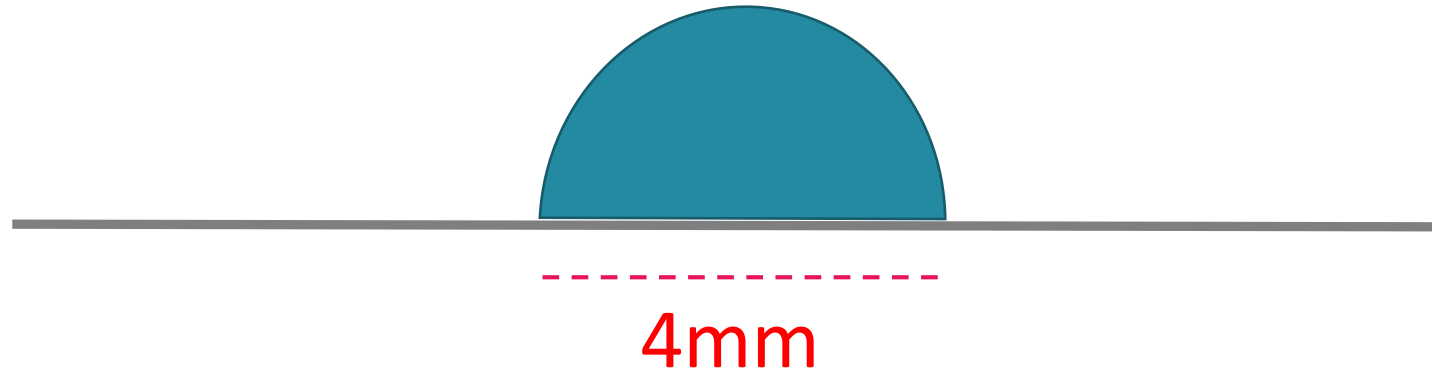
Equação de Halley

$$C = \frac{1}{f} = \left(\frac{n_l}{n_m} - 1 \right) \cdot \left(\frac{1}{R_1} + \frac{1}{R_2} \right)$$



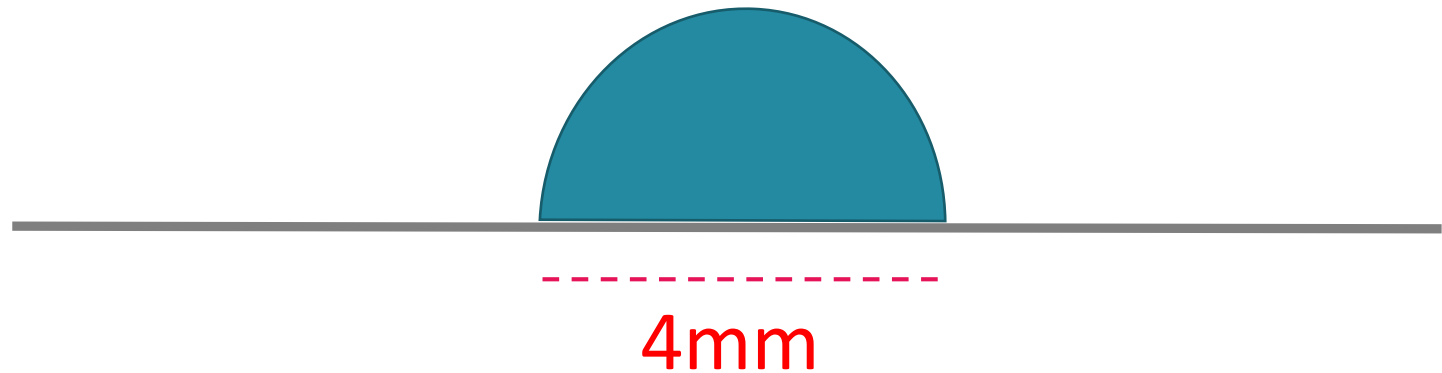
Equação de Halley

$$C = \frac{1}{f} = \left(\frac{n_l}{n_m} - 1 \right) \cdot \left(\frac{1}{R_1} + \frac{1}{R_2} \right)$$



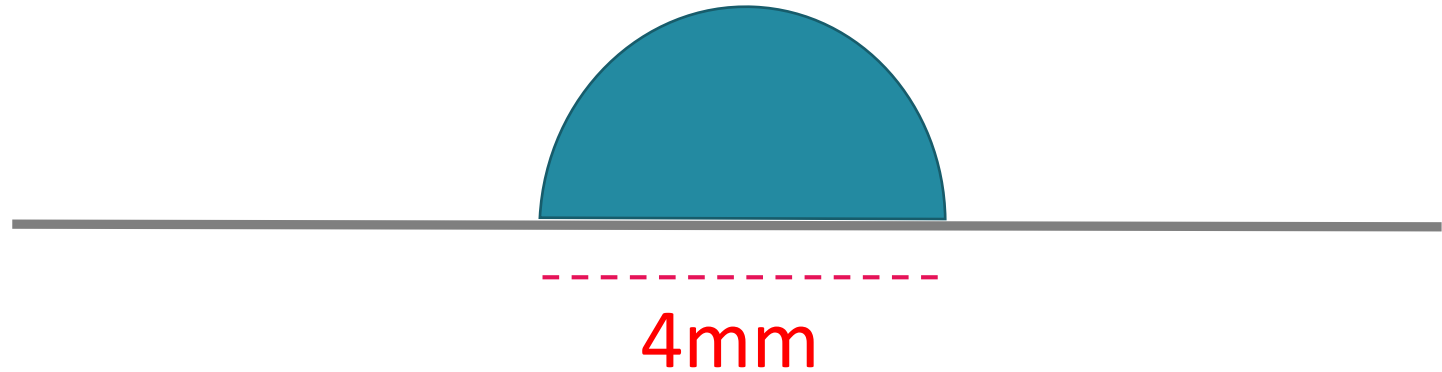
Equação de Halley

$$C = \frac{1}{f} = \left(\frac{1,5}{1,0} - 1 \right) \cdot \left(\frac{1}{R_1} + \frac{1}{R_2} \right)$$



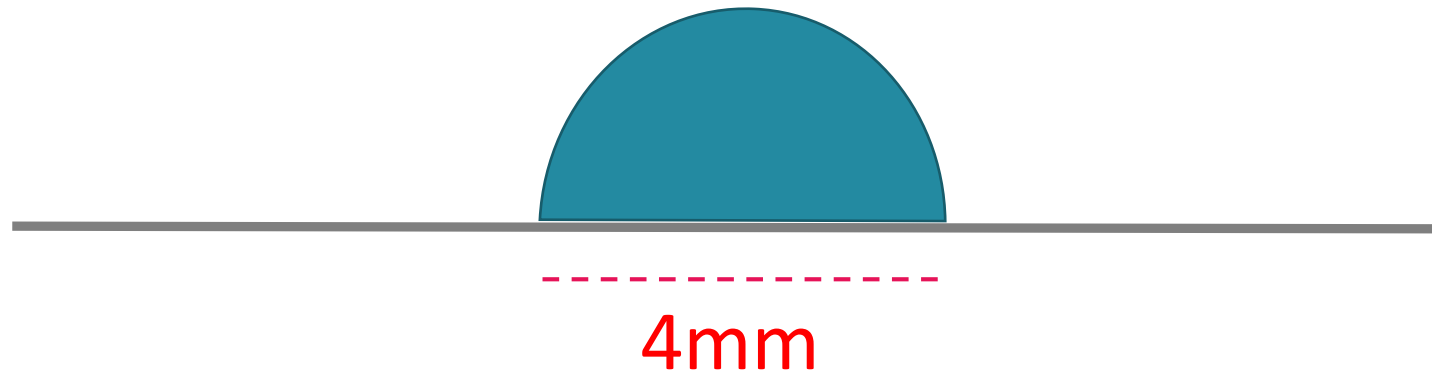
Equação de Halley

$$C = \frac{1}{f} = \left(\frac{1,5}{1,0} - 1 \right) \cdot \left(\frac{1}{2 \cdot 10^{-3}} + \frac{1}{R_2} \right)$$



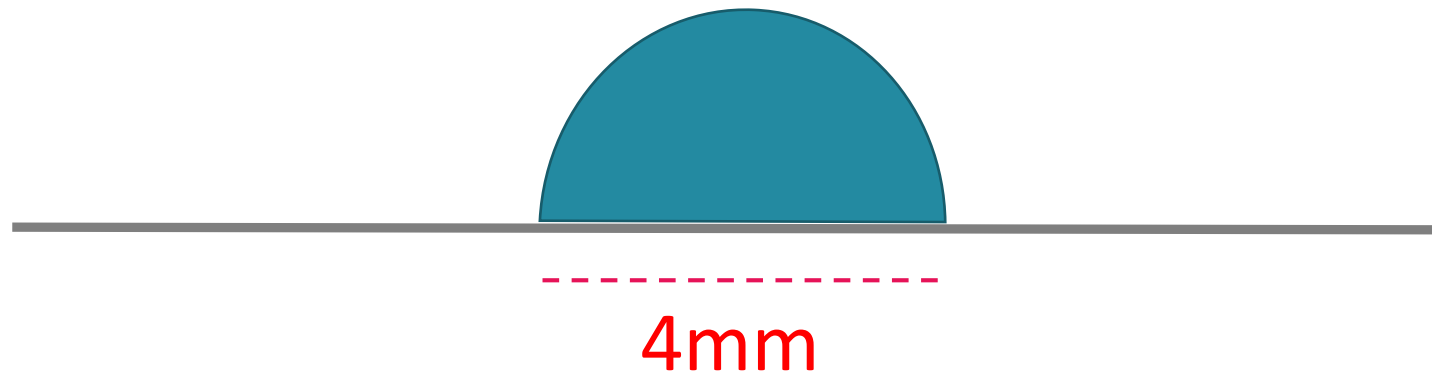
Equação de Halley

$$C = \frac{1}{f} = \left(\frac{1,5}{1,0} - 1 \right) \cdot \left(\frac{1}{2 \cdot 10^{-3}} + \frac{1}{\alpha} \right)$$



Equação de Halley

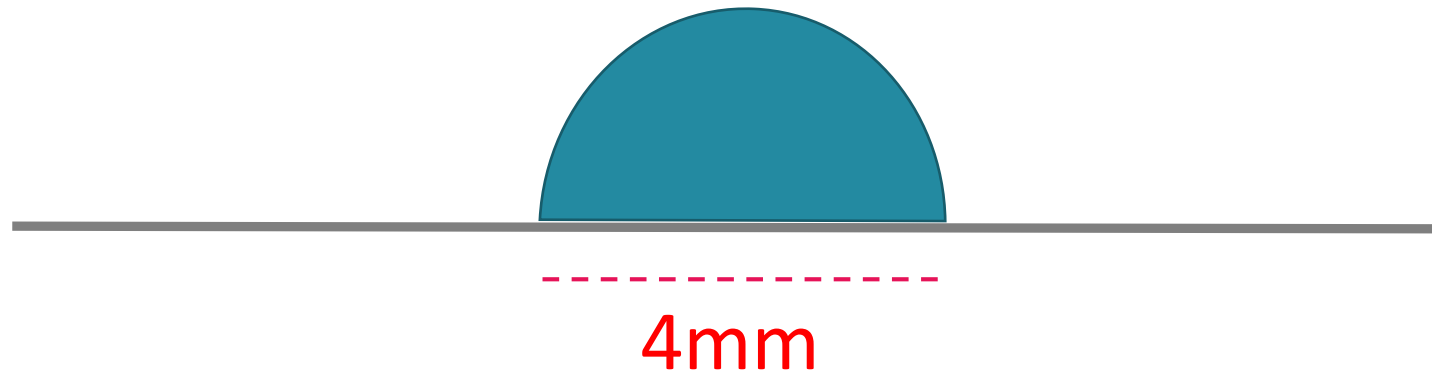
$$C = \frac{1}{f} = (0,5) \cdot (500 + 0)$$



Equação de Halley

$$C = \frac{1}{f} = (0,5) \cdot (500 + 0)$$

$$C = 250di$$



Lentes esféricas II

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