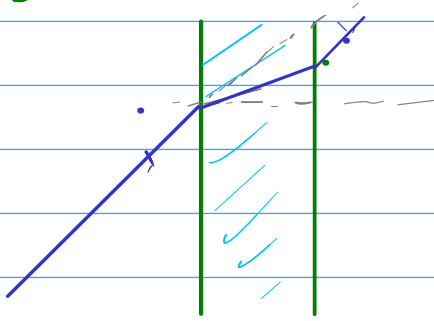


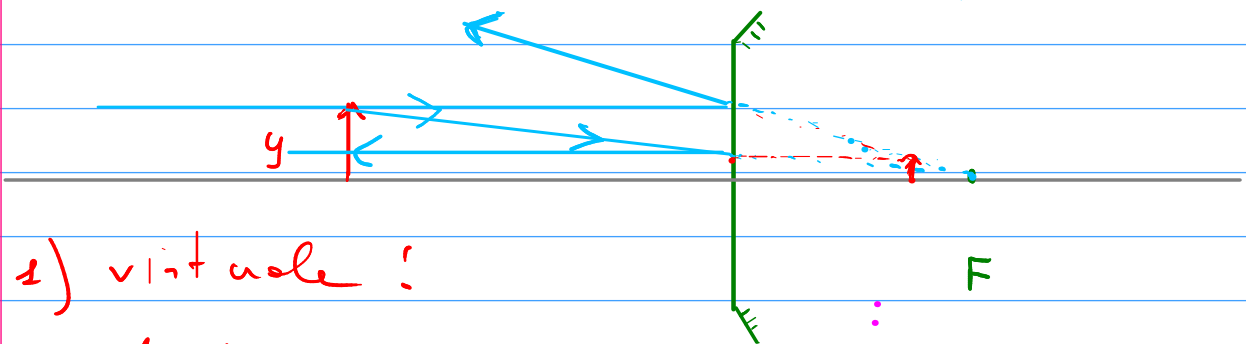
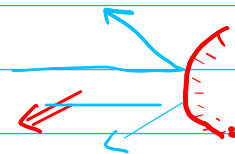
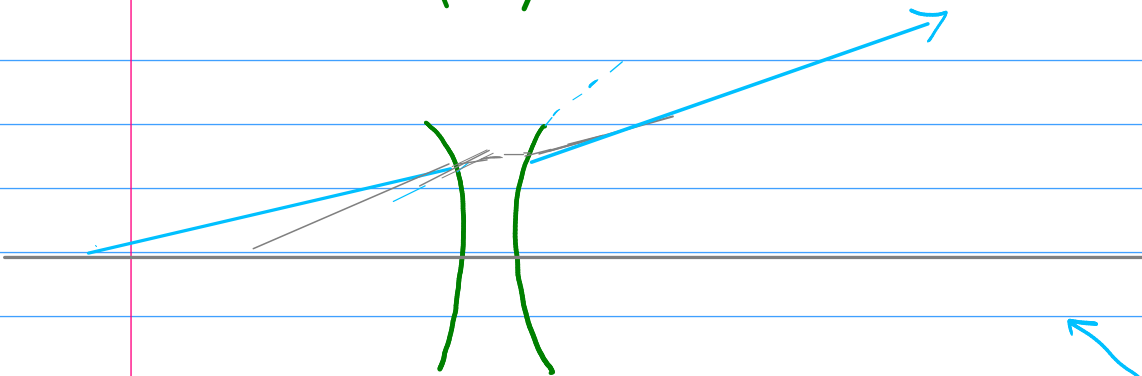
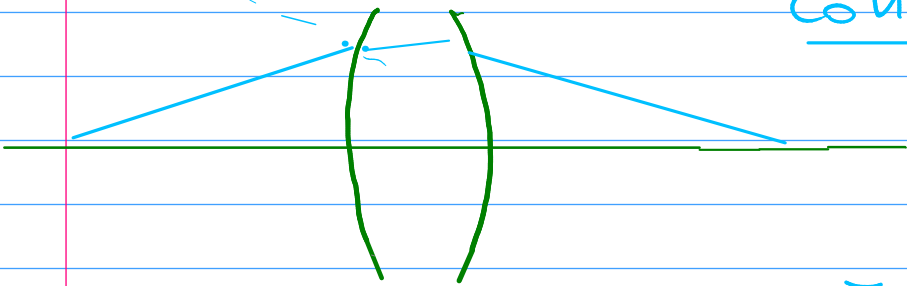
$$R_1 = R_2$$

$$\left(\left(\right) \right)$$

$R_1, R_2 \rightarrow \infty \Rightarrow$ losche



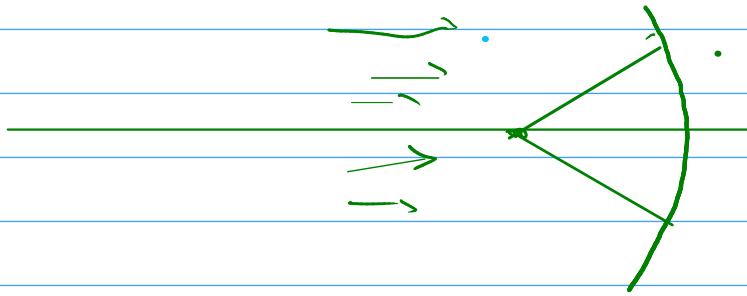
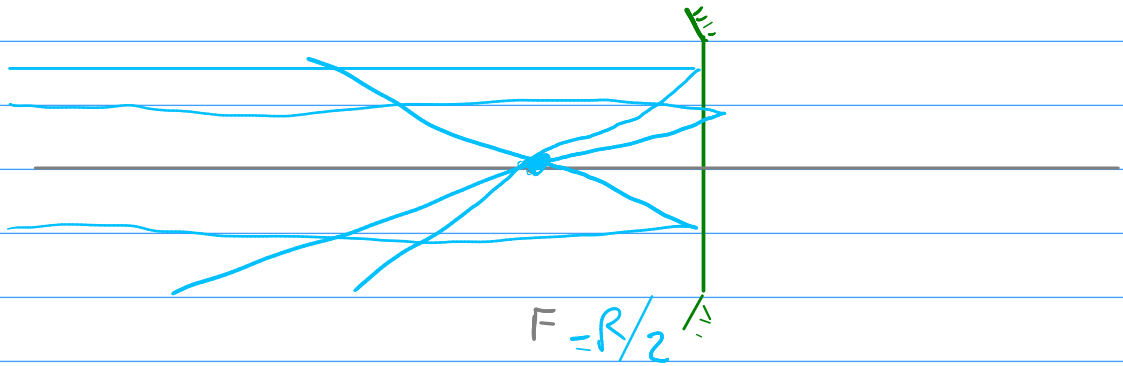
Convergent!



1) virtuelle!

2) dichte

3) numpiccolite



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

concave $f > 0$
fuoco a SX

$p \rightarrow \infty$

$$q = f$$

convesso $f < 0$
fuoco \rightarrow DX

SPECCHIO



p, q, f

$$\frac{1}{p} + \frac{1}{q} = \frac{1}{f} \rightarrow \frac{1}{q} = \frac{1}{f} - \frac{1}{p} = \frac{p - f}{p \cdot f}$$

$$q = \frac{p \cdot f}{p - f}$$

$$q = \frac{p \cdot f}{p - f} \xrightarrow{f < 0} \frac{< 0}{> 0} \Rightarrow \underline{\underline{< 0}}$$

$$M = -\frac{q}{p} > 0 \quad (\text{se } f < 0)$$

$$= -\frac{\cancel{p} \cdot f}{p - f} \cdot \frac{1}{\cancel{p}} = \frac{-f}{p - f} \rightarrow \frac{|f|}{p + |f|} < 1$$

$$M \rightarrow 1 \rightarrow \underline{\underline{p \rightarrow 0}}$$