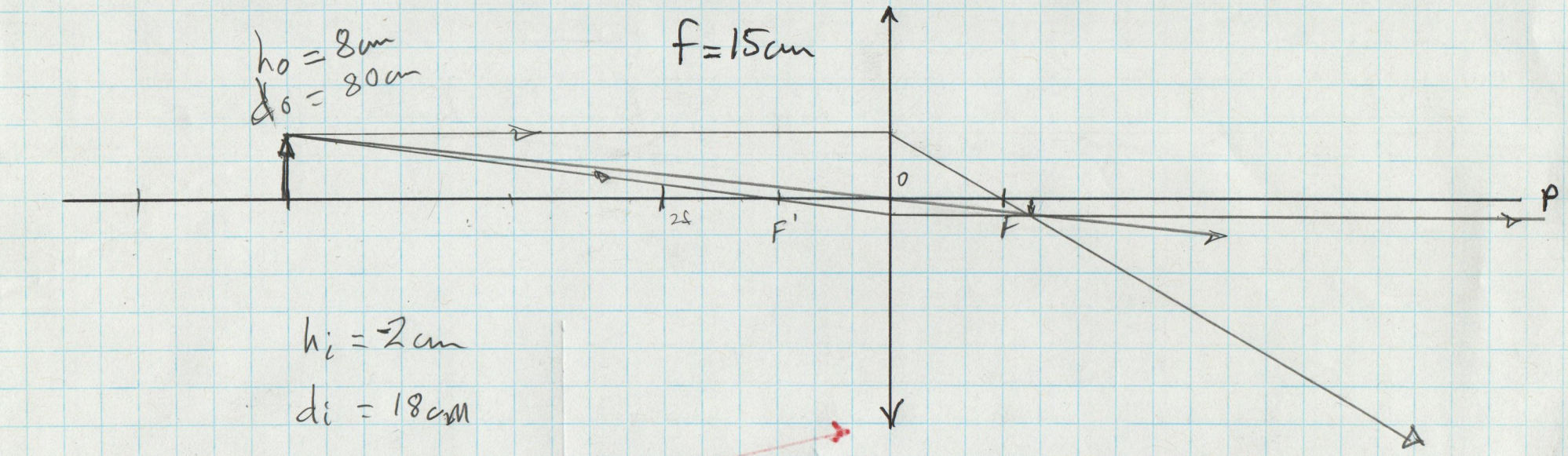
ARHS Physics
June 19, 2020



$h_i = -2\,cm$

$d_i = 18\,cm$

$$M = \frac{h_i}{h_o} = -\frac{d_i}{d_o}$$

$$\frac{1}{f} = \frac{1}{d_i} + \frac{1}{d_o}$$

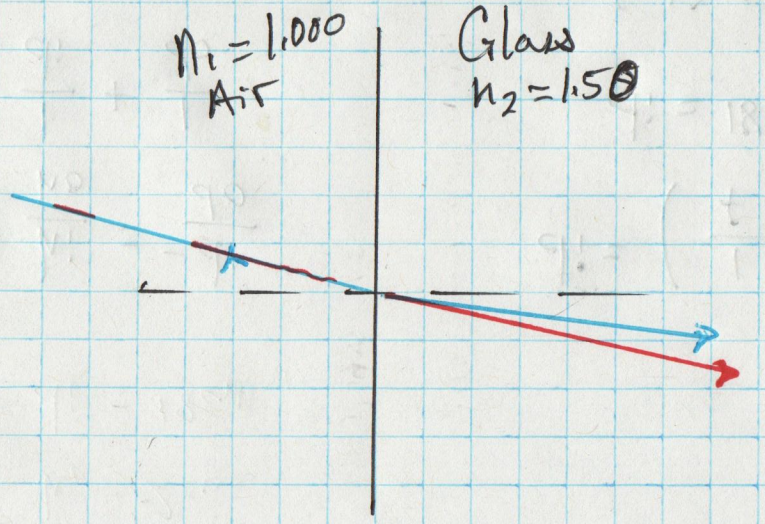
$$d_i = \left(\frac{1}{f} - \frac{1}{d_o}\right)^{-1} = \left(\frac{1}{15cm} - \frac{1}{80cm}\right)^{-1}$$

$d_i = 18.4615\,cm$ $\qquad$ $d_i = 18.5\,cm$

$$h_i = \left(\frac{-d_i}{d_o}\right) h_o = -\frac{18.4615cm}{80cm}(8cm) -$$

$h_i = -1.8462\,cm$ $\qquad$ $h_i = -1.85cm$

$$n_1 \sin\theta_1 = n_2 \sin\theta_2$$



$n_2(\lambda)$