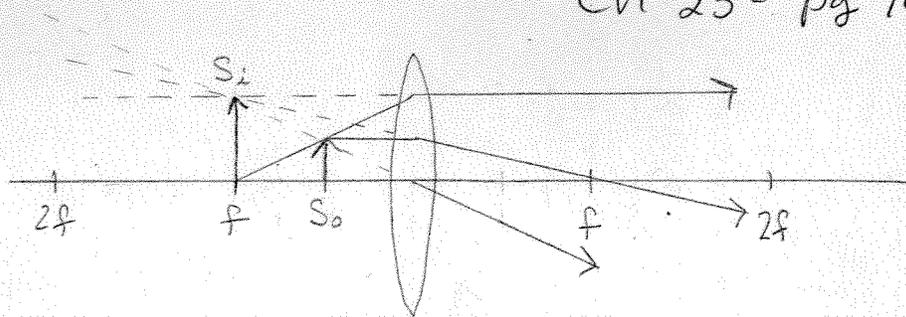


P # 29c

Ch 23 - pg 743

c)  $f = 20\text{cm}$   
 $s_o = 10\text{cm}$



$$\frac{1}{s_o} + \frac{1}{s_i} = \frac{1}{f}$$

$$M = -\frac{s_i}{s_o}$$

Upright, Virtual

$$\frac{1}{10} + \frac{1}{s_i} = \frac{1}{20}$$

$$= \frac{-(-20\text{cm})}{10\text{cm}}$$

$$s_i^{-1} = 20^{-1} - 10^{-1}$$

$$s_i = -20\text{cm}$$

$$M = 2$$