P #11 Ch 23 - pg 742

$h_o = 2.00\,cm$
$h_i = 5.00\,cm$
$s_o = 3.00\,cm$

$$M = \frac{h_i}{h_o} = \frac{-s_i}{s_o} \quad \text{so} \quad \frac{(5.00\,cm)}{(2.00\,cm)} = \frac{-s_i}{(3.00\,cm)}$$

$$s_i = -7.5\,cm$$

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

$$\frac{1}{3.0} + \frac{1}{-7.5} = \frac{1}{f}$$

$$f^{-1} = 3^{-1} + (-7.5)^{-1}$$

$$\boxed{f = 5.0\,cm}$$

Confirm w/ Ray Diagram