

b) For Lens #1 $S_o = 40 \text{ cm}$
 $S_i = 40 \text{ cm}$

$$M_1 = \frac{-S_i}{S_o} = \frac{-40}{40} = -1$$

For Lens #2 $S_o = 10 \text{ cm}$
 $S_i = 10 \text{ cm}$

$$M_2 = \frac{-S_i}{S_o} = \frac{-10}{10} = -1$$

$$M_{\text{total}} = M_1 \cdot M_2 = (-1)(-1)$$

$$M_{\text{total}} = 1$$

$$M = \frac{h_i}{h_o}$$

$$1 = \frac{2.00 \text{ cm}}{h_o}$$

$$h_o = 2.00 \text{ cm}$$

Image is formed by actual rays...

Real