a) $f = +2.44$ cm (converging)

   $d_i = +12.9$ cm   (positive d_i for real image)

$$\frac{1}{d_0} + \frac{1}{d_i} = \frac{1}{f}$$

$$\frac{1}{d_0} + \frac{1}{12.9 \text{cm}} = \frac{1}{2.44 \text{cm}}$$

$$d_0^{-1} = (2.44 \text{cm})^{-1} - (12.9 \text{cm})^{-1}$$

$$\boxed{d_0 = 3.01 \text{ cm}}$$

b) $f = +2.44$ cm (converging)

   $d_i = -12.9$ cm (negative d_i for virtual image)

$$\frac{1}{d_0} + \frac{1}{d_i} = \frac{1}{f}$$

$$\frac{1}{d_0} + \frac{1}{-12.9 \text{cm}} = \frac{1}{2.44 \text{cm}}$$

$$d_0^{-1} = (2.44 \text{cm})^{-1} + (12.9 \text{cm})^{-1}$$

$$\boxed{d_0 = 2.05 \text{ cm}}$$