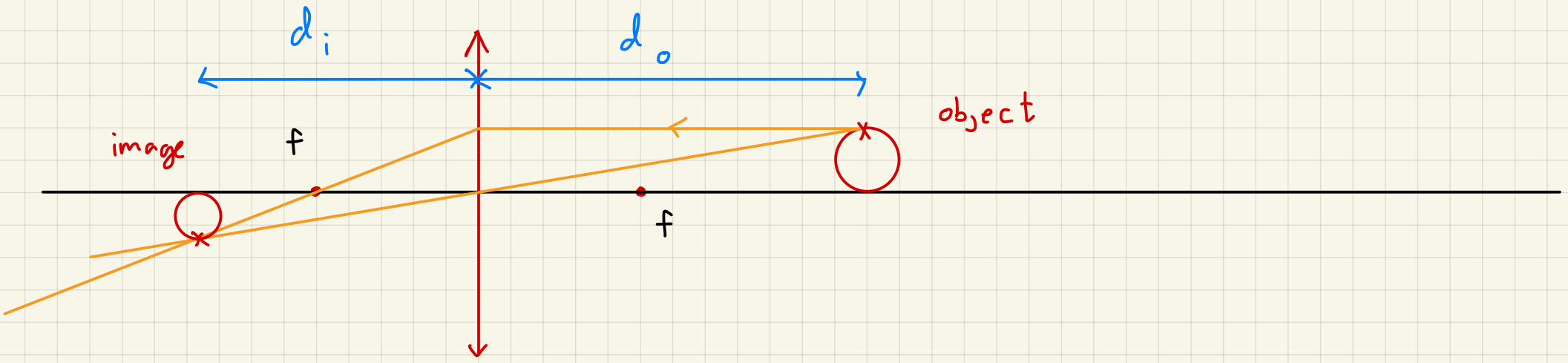

$$\frac{1}{f} = \frac{1}{d_i} + \frac{1}{d_o}$$

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

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

$$\Rightarrow \quad \frac{h_i}{h_o} = \frac{-\left(\frac{1}{f} + \frac{1}{d_o}\right)^{-1}}{d_o}$$

$$\Downarrow$$

$$d_o = f\left(\frac{-h_o}{h_i} - 1\right)$$

1 pixel = 0.26 mm

h_o = 3 m

h_i = (radius in pixels) × 2 × (0.26 mm) × $\left(\frac{1\ m}{1000\ mm}\right)$

$f = \frac{3\ mm}{1000}\ m$