

Solutions

Each answer shows the steps, then the **result**.

2.1

- $\frac{1}{s_i} = \frac{1}{10} - \frac{1}{30} = \frac{2}{30} \Rightarrow s_i = 15 \text{ cm}$

2.2

- positive

2.3

- a camera, the eye, or a magnifying glass (any one)

3.1 A

3.2 B

3.3

(a)

- $\frac{1}{s_i} = \frac{1}{10} - \frac{1}{15} = \frac{3-2}{30} = \frac{1}{30} \Rightarrow s_i = 30 \text{ cm}$

(b)

- real ($s_i > 0$)