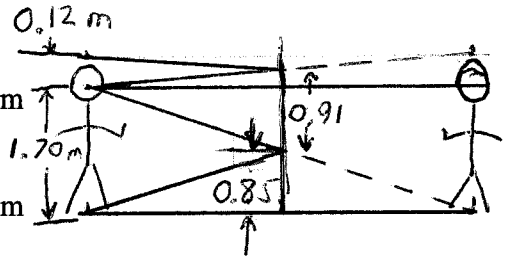


- Chapter 25, Problem 2a
 A) 0.24 m B) 0.85 m **C) 0.91 m** D) 1.70 m E) 1.82 m
Half the person's height
- Chapter 25, Problem 2b
 A) 0.24 m **B) 0.85 m** C) 0.91 m D) 1.70 m E) 1.82 m
Half the height of their eyes.
- Chapter 25, Problem 6
A) 7.2 m B) 4.7 m C) 5.7 m D) 6.5 m E) 8.0 m



25.6) The camera focuses on the image behind the mirror.

- Chapter 25, Problem 12a
 A) +68 cm B) -48 cm C) +48 cm **D) +24 cm** E) -24 cm

Image at focal point. Radius is twice as large (and positive)

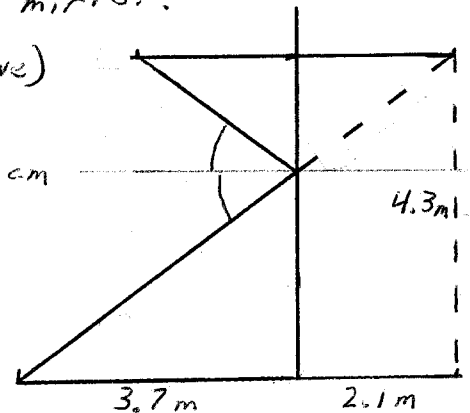
- Chapter 25, Problem 16
A) +32 cm B) -32 cm C) +16 cm D) -16 cm E) +8.0 cm

$d_o = 8 \text{ cm}$ $d_i > 0$ $m = \pm 4$ $m = \frac{-d_i}{d_o} \rightarrow d_i = +32 \text{ cm}$

- Chapter 25, Problem 34a
 A) +2.3 m B) +1.8 m C) -0.30 m D) -2.3 m **E) -1.8 m**

$f = -R/2 = -2 \text{ m}$ $d_o = 15 \text{ m}$ $d_i = -1.76 \text{ m}$

- Chapter 25, Problem 34b
A) virtual image B) real image *because $d_i < 0$*



- Chapter 25, Problem 34c
 A) 0.70 cm B) 0.032 cm C) 0.38 cm D) 0.25 cm **E) 0.19 cm** *Units were wrong!*
 $m = h_i/h_o = -d_i/d_o$ $1.76/15 = 0.118$ $(1.6)(0.118) = 0.19 \text{ m}$

- Chapter 26, Problem 10
 A) 0.75 **B) 0.87** C) 1.26 D) 1.19 E) 1.33

$\frac{n_A \sin \theta_A}{n_B \sin \theta_B} = \frac{n_B \sin \theta_B}{n_B \sin \theta_A} = \frac{\sin 50^\circ}{\sin 72^\circ} = 0.87$

- Chapter 26, Problem 100
 A) 87.9 cm **B) 12.1 cm** C) 35.0 cm D) 177 cm E) 333 cm

Spotlight

