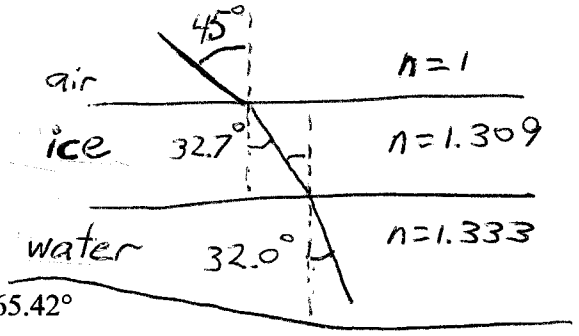


1. Chapter 26, Problem 14a
 A) 32° **B) 33°** C) 35° D) 36° E) 38°
2. Chapter 26, Problem 14b
A) 32° B) 33° C) 35° D) 36° E) 38°
3. Chapter 26, Problem 24
 A) 49.81° B) 40.19° **C) 37.79°** D) 52.62° E) 65.42°
4. Chapter 26, Problem 44a
 A) +47 cm B) +12 cm **C) -12 cm** D) -16 cm E) -47 cm
5. Chapter 26, Problems 44b
 A) 1.6 B) 2.5 C) 0.40 **D) 0.63** E) 0.84
6. Chapter 26, Problems 44c
 A) real **B) virtual**
7. Chapter 26, Problems 44d
A) upright B) inverted
8. Chapter 26, Problems 44e
 A) enlarged **B) reduced**



$n_1 = 1.632$
 $n_2 = 1$
 $\sin \theta_2 = 1 \leftarrow \text{Total Internal Reflection}$
 $\sin \theta_1 = \frac{n_2}{n_1} = \frac{1}{1.632}$
 $\theta_1 = 37.79^\circ$

$f = -32 \text{ cm}$
 $d_o = 19 \text{ cm}$
 $\frac{1}{d_o} + \frac{1}{d_i} = \frac{1}{f}$

$\frac{1}{d_i} = \frac{1}{f} - \frac{1}{d_o} = \frac{1}{-32} - \frac{1}{19} = -0.0839$
 $d_i = -11.9 \text{ cm}$
 virtual

$m = \frac{-d_i}{d_o} = \frac{11.9}{19} = 0.627$
 upright
 reduced

