1. A 2.00-m long pole is mounted vertically in a swimming pool. The top of the pole extends 0.50 m above the surface of the water. Light from the sun, which is 55° above the horizon, shines on the pole. What is the length of the shadow of the pole on the bottom of the swimming pool. (Assume the bottom of the pool to be flat and level.)
Answer: 1.07 m

2. Light is incident on a triangular glass prism in which each angle is 60°. The light makes an angle of 45° with the normal. The index of refraction of the glass is 1.50. Find the angle at which light emerges from the opposite face.
Answer: 52°