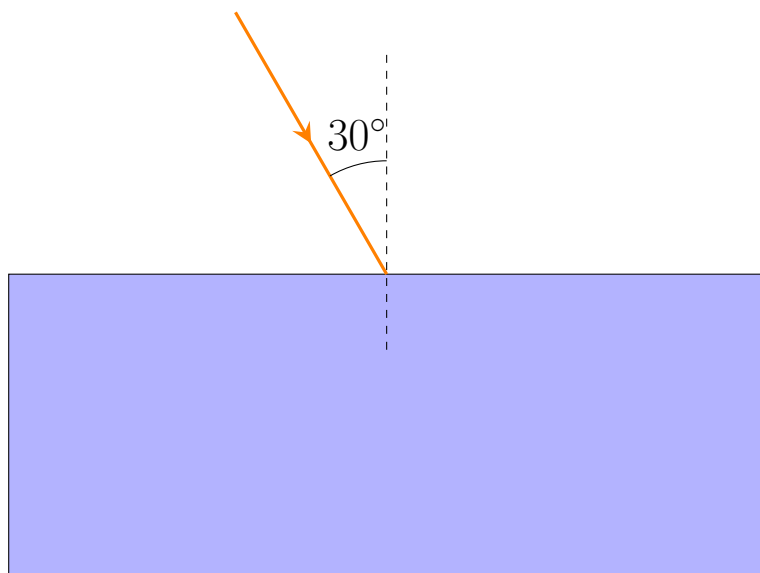


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## Task #1

The speed of light in acrylic is  $2.01 \times 10^8 \text{ m/s}$ .

- (a) Calculate the angle of refraction as the ray of light below enters the acrylic block shown below.
- (b) Calculate the angle of refraction as the ray of light exits the acrylic block.



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## Task #2

You are under water and are shining a laser upward through the surface of the water. The incident angle of the laser on the surface is  $62^\circ$ . What will be the angle of refraction? (The index of refraction for water is 1.33).

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Task #1 Answer

$$n = 1.49; \theta_2 = 19.6^\circ; \theta_3 = 30^\circ$$

Task #2 Answer

$$\text{undefined}; \theta_c = 48.8^\circ$$

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