

Medium	Index of Refraction (n)
Air/vacuum	1.00
Ice	1.31
Water	1.33
Ethyl alcohol	1.36
Vegetable oil	1.47
Acrylic	1.49
Glass	1.52
Diamond	2.42

- What is the angle of refraction in a medium if the angle of incidence in air is 48° and the index of refraction of the medium is 1.58?
 - What is the angle of incidence in a medium in the case where the angle of refraction in air is 40° and the index of refraction of the medium is 1.58?
- A ray of light passes from air into water at an angle of incidence of 50° . What is the angle of refraction?
- Light travels from air into water. If the angle of refraction is 30° , what is the angle of incidence?
- A ray of light in air strikes a block of quartz at an angle of incidence of 30° . The angle of refraction is 20° . What is the index of refraction in quartz?
- One ray of light in air strikes a diamond and another strikes a piece of quartz. In each case the angle of incidence is 40° . What is the difference in the angles of refraction?
- An underwater swimmer looks up toward the surface of the water on a line of sight that makes an angle of 25° with a normal to the surface of the water. What is the angle of incidence in air for the light rays that enter the swimmer's eye?

Answers:

- a) 28° b) 24°
- 35°
- 42°
- 1.46
- 11°
- 34°