Worksheet on the Index of Refraction

Absolute Indices of Refraction

Substance	Index
Air	1.00
Alcohol	1.36
Canada Balsam	1.53
Corn Oil	1.47
Diamond	2.42
Glass,Crown	1.52
Glass, Flint	1.61
Glycerol	1.47
Lucite	1.50
Quartz, Fused	1.46
Water	1.33

1. Calculate the speed of light in flint glass.

2. Calculate the speed of light in water.

3. A beam of light in air enters corn oil. It makes an angle of 20° with the surface of the oil. Calculate the angle of refraction of the light.

4. Light is traveling in Lucite and it enters air at an angle of incidence of 25°. Calculate the angle of refraction

5. Light is traveling in glycerol and enters diamond. Which of the following is true? (A) The angle of incidence is greater than the angle of refraction (B) The angle of refraction is larger than the angle of incidence (C) The angle of incidence is equal to the angle of refraction.

6. Light is traveling in glycerol and it enters Corn oil. Which of the following is true? (A) The angle of incidence is greater than the angle of refraction (B) The angle of refraction is larger than the angle of incidence (C) The angle of incidence is equal to the angle of refraction.

7. Will light travel at a higher speed in water or Lucite?

8. When light moves from a lower index to a higher index obliquely, it will bend (A) Toward the normal (B) Away from the normal (C) It will not bend.

9. When light slows down moving obliquely between substances it will bend (A) Toward the normal (B) Away from the normal (C) It will not bend.