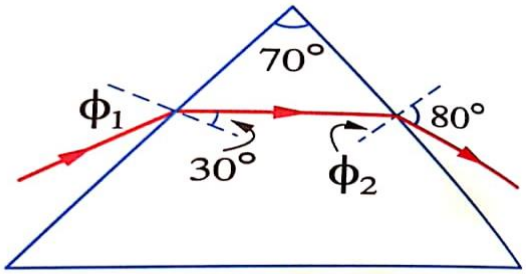
Quiz 4

Name: class:

1. From the opposite figure

a. The first angle of incidence = (49.91 - 48 - 50.5)
b. The second angle of incidence = (40 - 45 - 30)
c. The refractive index = (1.55 - 1.53 - 1.6)
d. The angle of deviation = (59.91 - 60.32 - 57)



2. A light ray falls at angle of incidence 0^0 on one of the faces of a triangular prism of an apex 45^0. If the ray emerges tangentially from the opposite face, the speed of light in the prism equals ……. (C = $3x10^8$ m/s)

a) $1.96 x10^8$ b) $2.08 x10^8$ c) $2.12 x10^8$ d) $2.41 x10^8$

3. A light ray fell on one of the faces of an equilateral triangular prism, the ray refracted parallel to the base and emerged with an angle 50^0 , so the angle of incidence equals ……

a) 40 b) 60 c) 50 d) 90

4. A light ray falls on a triangular prism by angle 60°, it emerges by an able 30°, if the refractive index of the prism is 1.6. So the apex angle is …….

a. 50.97^0 b. 90^0 c. 60^0 d. 30^0

5. light ray falls at an angle of 45° on a triangular prism with a apex angle of 30° and emerges perpendicular to its other face. The angle of deviation is = ...

(A) 15° (B) 20° (C) 25° (D) 30°

6. If the refractive index of equilateral prism is $\sqrt{2}$, the angle of minimum deviation of the prism is ……

a) 40 b) 30 c) 45 d) 60

7. A triangular prism with a apex angle of 60°, and the angle of incidence from the air on the prism = 60°, and the second angle of incidence in the prism = 27.23° Calculate the value of the refractive index of the prism material.

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8. A light ray falls at an angle of 60° on one of its faces. An equilateral triangular prism with a refractive index of $\sqrt{2}$. Find the angle of emergence and the angle of deviation of the ray.

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