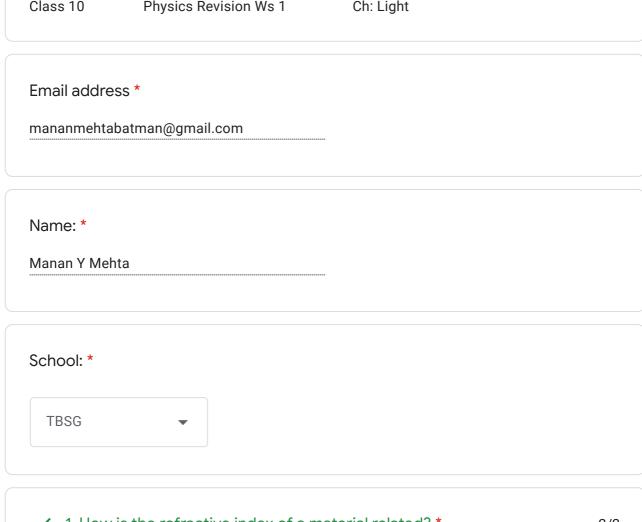
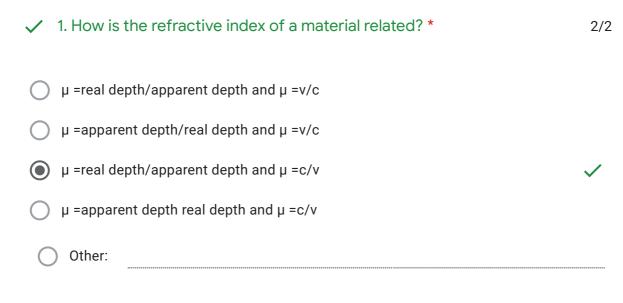
The Brigade School @ G and W

Total points 15.5/20

Class 10 Physics Revision Ws 1 Ch: Light







2. Which of these conditions must be full filled for TIR? * 2/2
Light should travel from rarer to denser medium and angle of incidence > than critical angle
Light should travel from denser to medium and angle of incidence > than critical angle
Light should travel from rarer to denser medium and critical angle > than angle angle of incidence
Light should travel from denser to rarer medium and critical angle > than angle angle of incidence
3. Angle of deviation is related to refractive index and wavelength in the 2/2 following way: *
Oirectly proportional to refractive index and wavelength
Inversely proportional to refractive index and wavelength
Oirectly proportional to wavelength and inversely proportional to refractive index
 Directly proportional to refractive index and inversely proportional to wavelength
 A lens forms an upright and diminished image of an object placed at the focal point of a lens. (a) Name the lens. (b) Draw a ray diagram to show the image formation. * IMG2020090710

- ✓ 5. (a) Write the relationship between angle of incidence and angle of 3/3 refraction for a given pair of media. (b) Why does a ray of light bend when it moves from one medium to another of different optical densities, (c) Write one condition when bending of light will not happen when the ray travels from one medium into another. *
- (a) sin i/sin r = constant
- (b) A ray of light bends when it moves from one medium to another of different optical densities because of change in speed of light in going from one medium to another.
- (c) The condition is that refractive index should remain same.

Feedback

- a. ref. index = sin i/sinr [1 mark]
- b. because the speed of light changes when the ray travels from one medium to another [1
- c. When ray is incident normally on the surface separating the two media. [1 mark]
- X 6. (a) The speed of light in glass is 2 x 10⁵ km/s. What is the refractive 1.5/4 index of glass? (b) What change is observed in the appearance of a pencil when it is put in a container of water? (c) Name the phenomenon responsible for this change. *
- (a) Refractive index is 8/9.
- (b) A part of immersed pencil looks short and raised up.
- (c) Refraction of light is the phenomenon.

Feedback

- (a) Ref index of glass = $c/v = 3 \times 10^8/2 \times 10^8 \text{ m/s} = 1.5 \{1+1\}$
- (b) The pencil appears to be bent [1]
- (c) Refraction of light [1]

✓ 7. (a) Where should an object be placed to get an image of the same size 4/4 in a convex lens? What will the nature of the image be? (b) Draw a ray diagram in support of your answer.

Scanned_202009...

Feedback

- (a) At 2F1 [1]
- (b) Real and inverted [1]
- (c) Ray diagram [2]

This content is neither created nor endorsed by Google. - <u>Terms of Service</u> - <u>Privacy Policy</u>

Google Forms