

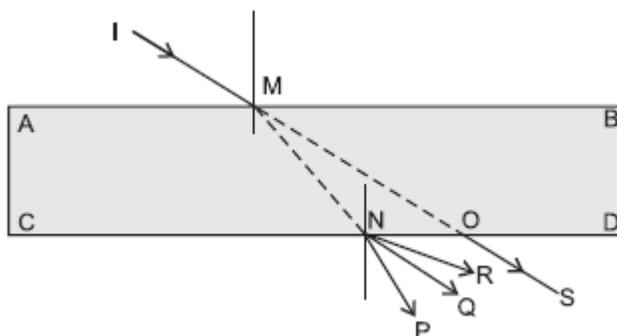
# O P JINDAL SCHOOL, SAVITRINAGAR

## ASSIGNMENT

### CLASS X PHYSICS

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71 If a light ray IM is incident on the surface AB as shown, identify the correct emergent ray.



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72 Does the value of speed of light change with medium?

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73 The following table gives the values of refractive indices of a few media.

S.No.	Medium	Refractive Index
1.	Water	1.33
2.	Crown glass	1.52
3.	Rock salt	1.54
4.	Ruby	1.71
5.	Diamond	2.42

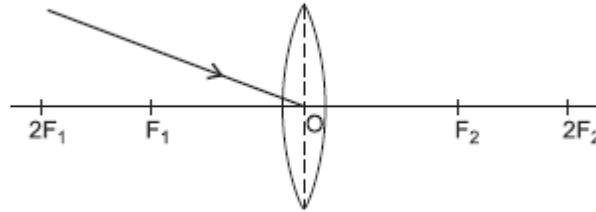
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Use this table to give an example of a medium pair so that light speeds up when it goes from one of these media to another.

74 The speed of light in a transparent medium is 0.6 times that of its speed in vacuum. What is the refractive index of the medium?

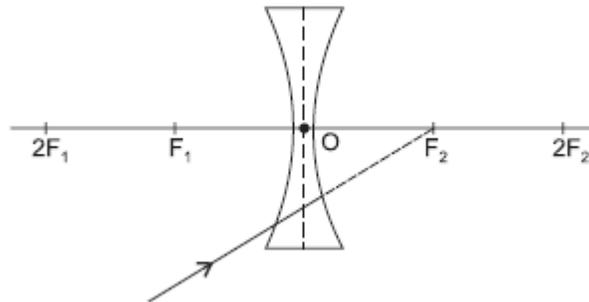
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75 Redraw the given diagram and show the path of the refracted ray.



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76 Redraw the diagram given below in your answer book and show the direction of the light ray after refraction from the lens.



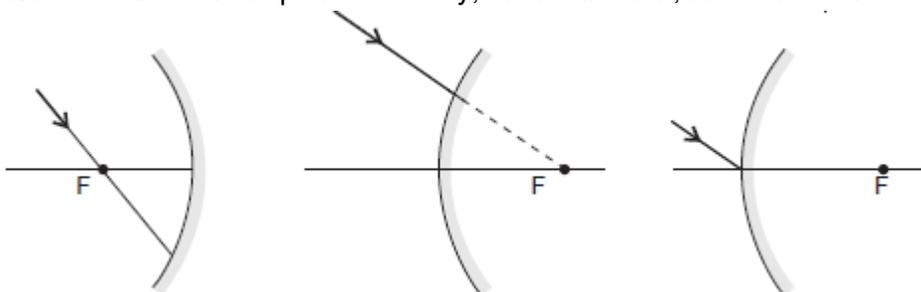
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77 An object is held at the principal focus of a concave lens of focal length  $f$ . Where the image will form? 1

78 A girl was playing with a thin beam of light from her laser torch by directing it from different directions on a convex lens held vertically. She was surprised to see that in a particular direction the beam of light continues to move along the same direction after passing through the lens. State the reason for this observation. 1

79 Is it possible to form a real image using a real object with a concave lens? 1

80 Draw the following diagram in which a ray of light is incident on a concave/convex mirror on your answer sheet. Show the path of this ray, after reflection, in each case.



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