



St. Lawrence High School
A Jesuit Christian Minority Institution



Term : Pre – Test

Solution of Work Sheet – 11

Subject – Physical Science

Class – X

Date – 13.05.20

Chapter – Light

Topic – Focus of Lenses

Choose the correct option for the following questions.

1 × 15 = 15

- Convex Lens is –
 - A diverging lens
 - A converging lens
 - Both diverging or converging depending on the source
 - None of these

Ans: b. A converging lens
- Concave Lens is –
 - A diverging lens
 - A converging lens
 - Both diverging or converging depending on the source
 - None of these

Ans: a. A diverging lens
- For a lens system, all the distances are measured with respect to –
 - Pole
 - Focus
 - Centre of curvature
 - Optical centre.

Ans: d. Optical centre
- If a ray is made incident on a convex lens parallel to the principal axis, then after refraction –
 - It bends towards the principal axis
 - It bends away from the principal axis
 - It travels straight without any deviation
 - It appears to diverge from a point

Ans: a. It bends towards the principal axis
- If a ray is made incident on a concave lens parallel to the principal axis, then after refraction –
 - It bends towards the principal axis
 - It bends away from the principal axis
 - It travels straight without any deviation
 - It retraces its path

Ans: a. It bends away from the principal axis
- If a parallel beam of light is made incident on a convex lens parallel to the principal axis, then after refraction-
 - The rays practically meet at a point on the principal axis
 - They rays appear to diverge from a point on the principal axis
 - The rays travel straight
 - None of these

Ans: a. The rays practically meet at a point on the principal axis

7. If a parallel beam of light is made incident on a concave lens parallel to the principal axis, then after refraction-
- The rays practically meet at a point on the principal axis
 - They rays appear to diverge from a point on the principal axis
 - The rays travel straight
 - None of these
- Ans: b. They rays appear to diverge from a point on the principal axis
8. For convex lens the point on the principal axis where the parallel incident rays after refraction meet, is called –
- The first focus
 - The second focus
 - The optical centre
 - The centre of curvature
- Ans: b. The second focus
9. For concave lens the point on the principal axis where the parallel incident rays after refraction meet, is called –
- The centre of curvature
 - The optical centre
 - The first focus
 - The second focus
- Ans: d. The second focus
10. If a point source of light is placed on the principal axis of a lens such that the rays after refraction becomes parallel to the principal axis, then that point will be known as –
- the first focus of the concave lens
 - the first focus of the convex lens
 - the second focus of the concave lens
 - the second focus of the convex lens
- Ans: b. the first focus of the convex lens
11. When a point source of light (radiating light in all directions) is placed in front of an unknown optical device, it is seen that the rays after refraction becomes parallel to each other. The optical device can be –
- A concave lens
 - A convex lens
 - A prism
 - A parallel glass slab
- Ans: b. A convex lens
12. The lens that obeys ‘Snell’s law’ and also the ‘Laws of refraction’ is –
- A convex lens
 - A concave lens
 - Both the lenses
 - None of them
- Ans: Both the lenses
13. The focus of a concave lens is –
- A real point where incident rays converge practically after refraction.
 - An imaginary point from where the parallel incident rays appear to diverge.
 - A point at which a point source of light placed gives the parallel refracted rays.
 - None of these
- Ans: b. An imaginary point from where the parallel incident rays appear to diverge.
14. For thin lens, any incident ray made incident at the optical centre –
- Remains undeviated
 - Remains undeviated with a lateral displacement
 - Becomes parallel after refraction for both the lenses
 - Becomes parallel after refraction only for convex lens
- Ans: a. Remains undeviated

15. For thick lens, any incident ray made incident at the optical centre –
- a. Remains undeviated
 - b. Remains undeviated with a lateral displacement
 - c. Becomes parallel after refraction for both the lenses
 - d. Becomes parallel after refraction only for convex lens

Ans: a. Remains undeviated with a lateral displacement

Name of the teacher – Soumitra Maity