



REFLECTION OF LIGHT
Grade-IX A,B PHYSICS

- 1.a. State the laws of reflection of light.
- b. State two positions in which a concave mirror produces a magnified image of a given object.
- c. Draw ray diagrams showing the image formation by a concave mirror when an object is placed
 - between focus and center of curvature of the mirror
- d. An object is placed at a distance of 10 cm from a convex mirror of focal length 15 cm. Find the position and nature of the image.



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Grade-IX A,B

PHYSICS

2.a. What is pole?

b. Name the type of mirror which is known as shaving mirror. Give relevant ray diagram to justify your answer.

c. Draw ray diagrams showing the image formation by a concave mirror when an object is placed

-at center of curvature of the mirror

d. 4.5 cm needle is placed 12 cm away from a concave mirror of focal length 15 cm. Give the location of image and magnification. [REMEMBER AS WE LEARNED AT CLASS, THE SIZE SHOULD NOT BE ACTUAL. YOU CAN USE ANY SCALE.]



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Grade-IX A,B

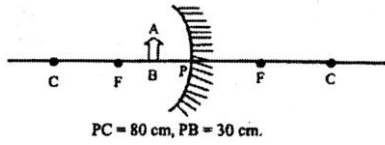
PHYSICS

- 3.a. Define the principal focus of a concave mirror
- b. The magnification produced by a plane mirror is +1. What does this mean?
- c. Draw ray diagrams showing the image formation by a concave mirror when an object is placed
-between pole and focus of the mirror
- d. A 10 mm long pin is placed vertically in front of a concave mirror. A 5 mm long image of the pin is formed at 30 cm in front of the mirror. Find the focal length of this mirror.
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PHYSICS

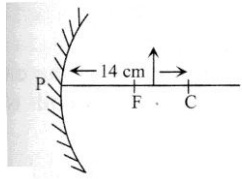


- 4.a. What is convex mirror? 1
- b. Why green leaves look black under red light?
2
- c. Determine the magnification of object AB. 3
- d. If there object is placed 50 cm away from the pole then what will be the position, size and nature of the image? Explain with help diagram. 4

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Grade-IX A,B

PHYSICS



5. The distance of the object is 10cm in the figure

a. What is POLE?

1

b. What do you understand by magnification of a concave mirror by 3X?

2

c. Calculate the distance of the image.

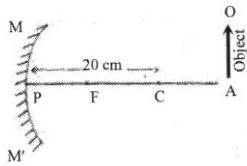
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d. If the object is placed at 5 cm distance in front of the mirror, analyze the position, size and nature of the image by ray diagram.

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Grade-IX A,B

PHYSICS



6. a. What is called principal focus? 1
- b. How does diffused reflection is helpful for us? 2
- c. If a body is placed 30 cm away from the mirror, determine the distance of the image. 3
- d. At what placed should an object be placed to form real and magnified image? Explain with ray diagram. 4