ODM EDUCATIONAL GROUP
Changing your Tomorrow

LIGHT REFLECTION AND REFRACTION

CHAPTER NO.10

SUB: PHYSICS

LIGHT REFLECTION AND REFRACTION

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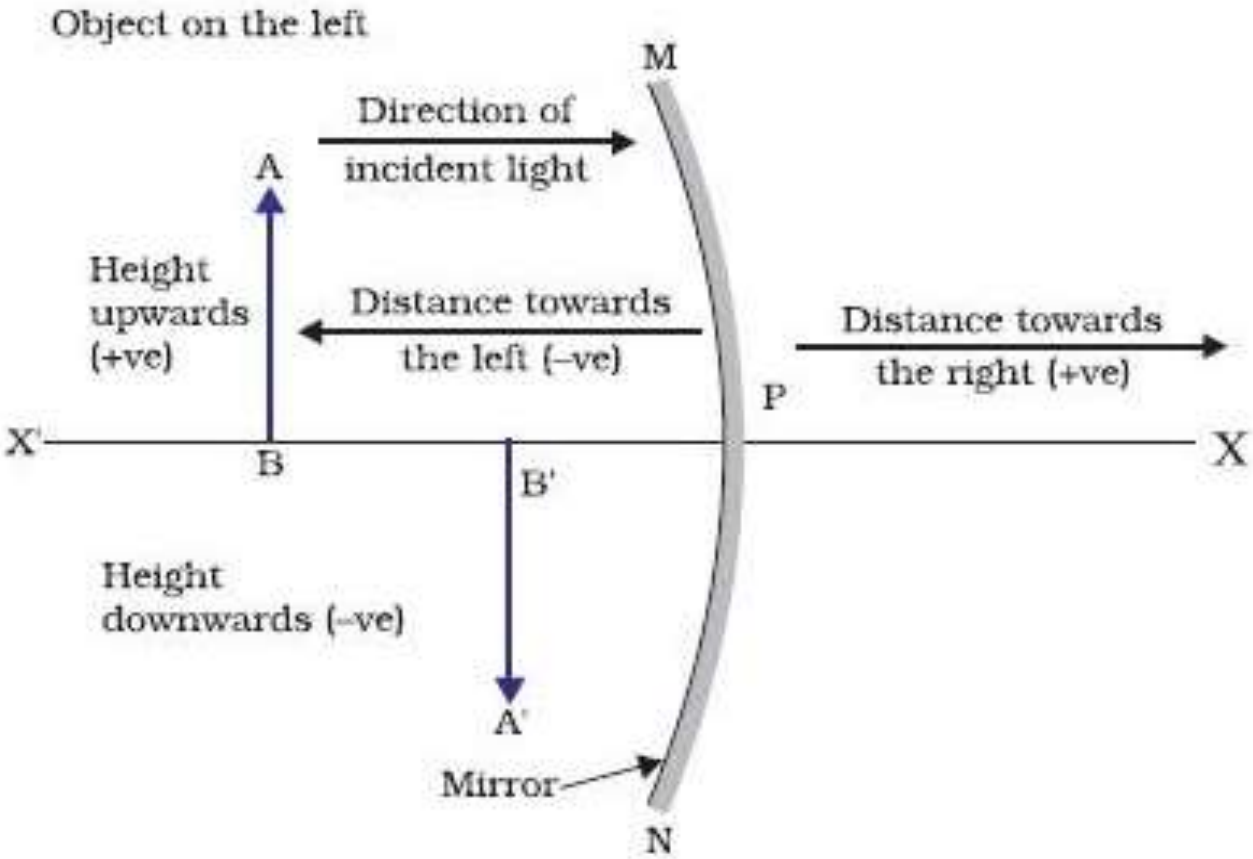
POINTS TO BE COVERED

- Problems based on Mirror formula and magnification.

LEARNING OUTCOMES

- Students will be able to
- Solve numerical problems based on mirror formula and magnification.
- Predict the different positions of images for different positions of object.

RECALLING OF PREVIOUS KNOWLEDGE

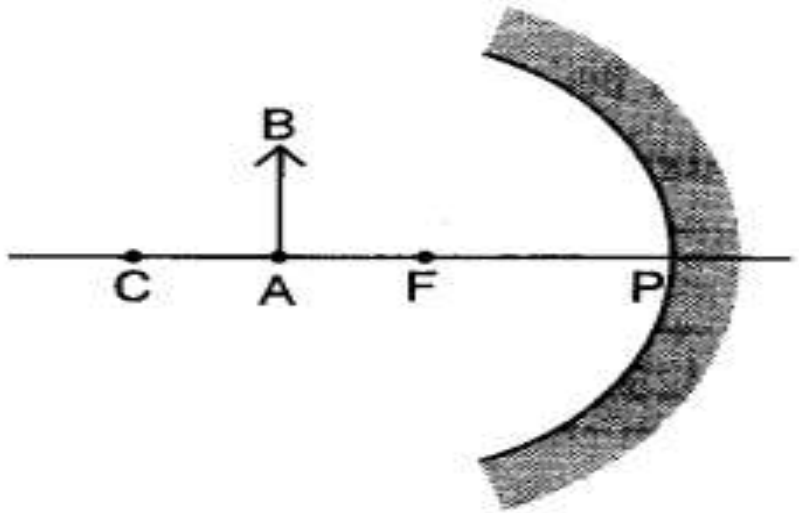


$$Magnification(m) = \frac{Height\ of\ image\ (h')}{Height\ of\ object\ (h)}$$

$$Or, \qquad m = \frac{h'}{h}$$

LETS SOLVE

- **Draw the following diagram in your answer book and show the formation of image of the object AB with the help of suitable rays.**



- **An object 2 cm in size is placed 30 cm in front of a concave mirror of focal length 15 cm. At what distance from the mirror should a screen be placed in order to obtain a sharp image? What will be the nature and the size of the image formed? Draw a ray diagram to show the formation of the image in this case.**

It is desired to obtain an erect image of an object, using a concave mirror of focal length 20 cm.

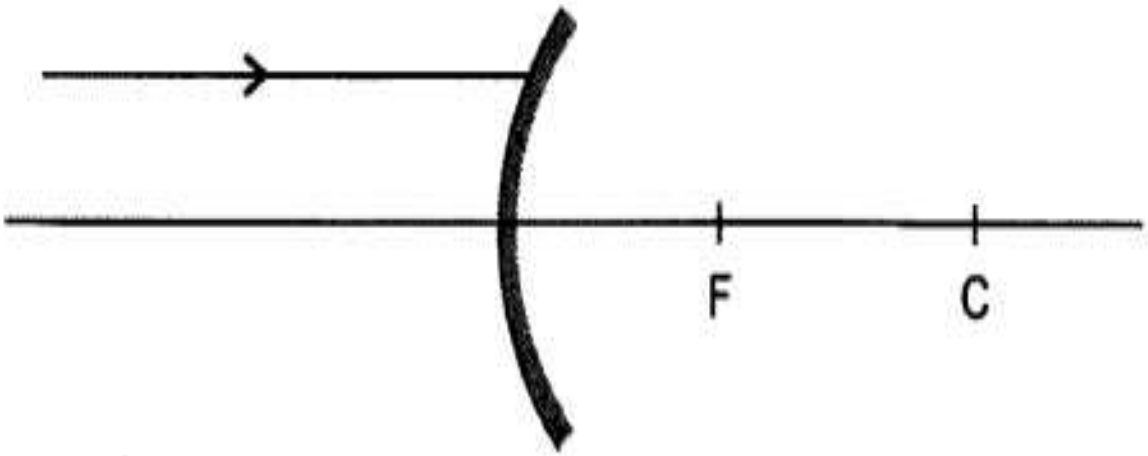
(i) What should be the range of distance of the object from the mirror?

(ii) Will the image be bigger or smaller than the object?

(iii) Draw a ray diagram to show the image formation in this case.

HOME ASSIGNMENT

- **Redraw the diagram given below in your answer book and show the direction of the light ray after reflection from the mirror.**



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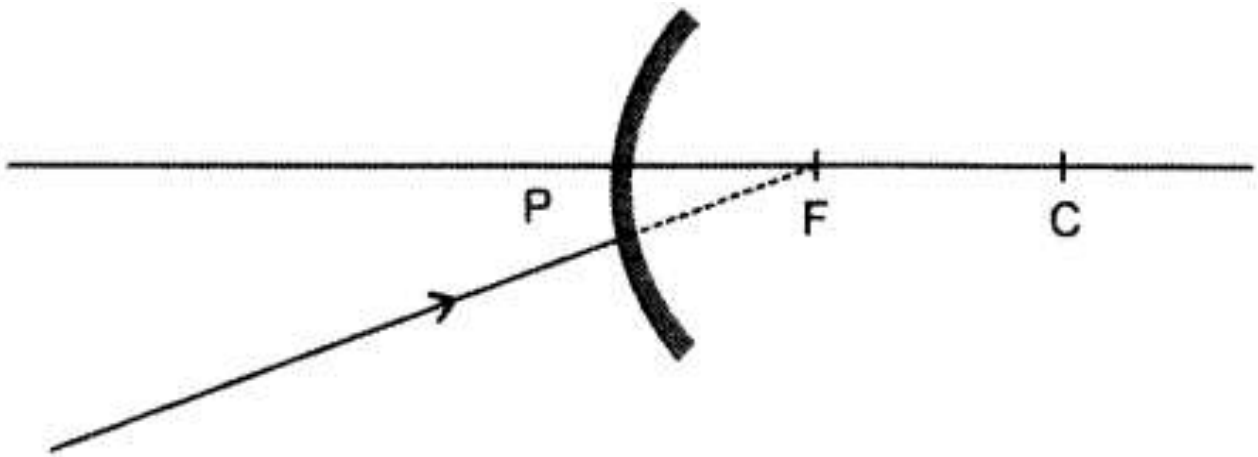

THANKING YOU

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