

Answer on Question 52377, Physics, Optics

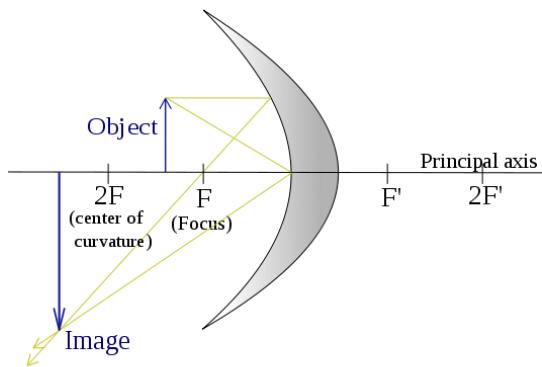
Question:

Which of the following is not true of experiments involving curved mirrors?

- a) image distance is negative for real image
- b) object distance is positive
- c) image distance is negative for virtual image
- d) focal length is negative for convex mirrors

Answer:

The image on the convex mirror is always virtual, thus the focal length is negative for convex mirrors. For both types of curved mirrors (convex and concave) the object distance is positive and the image distance is negative for virtual image. The concave mirrors shows different images types depending on the distance between the object and the mirror. For example, when object between focus and centre of curvature the image is real, inverted and magnified. But the image distance is positive for real image, not negative.



Thus, the answer is **a) image distance is negative for real image.**