

Concave mirror

Questions

1. What happens to the size of a real image as the object is moved away from the mirror?
2. What happens to the size of a virtual image as the object is moved away from the mirror?
3. For what range of object distances is a real image formed by the concave mirror?
4. For what range of object distances is a virtual image formed by the concave mirror?
5. Can a real image be diminished? If so for what object distances?
6. Can a real image be enlarged? If so for what object distances?
7. Can a virtual image be diminished? If so for what object distances?
8. Can a virtual image be enlarged? If so for what object distances?
9. For a real image formed by the mirror, how does image distance vary as the object is moved away from the mirror?
10. For a virtual image formed by the mirror, how does image distance vary as the object is moved away from the mirror?
11. Does the image distance of a real image vary linearly with the object distance?
12. Does the image distance of a virtual image vary linearly with the object distance?
13. Is it possible to have a real image twice the size of the object?
14. Is it possible to have a virtual image twice the size of the object?
15. Plot the graph of image distance (v) as a function of object distance (u).
16. Plot the graph of ($1/v$) as a function of object distance ($1/u$).

Note :

Questions given above may be visualized and answered using the simulations.

Obtaining a mathematical solution is to be always treated as the final answer because such a mathematical solution implies that one is able to understand and apply the concept.

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