

1. Define the following terms on the basis of conic section:

A. Cone

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B. Conic section

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C. Parabola

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D. Ellipse

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E. Hyperbola

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F. Axis of cone

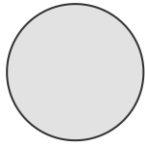
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G. Circle

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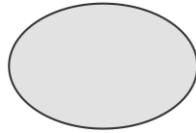
2. Name the following curves:

(a)



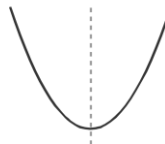
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(b)



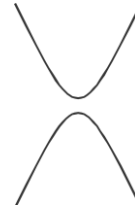
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(c)



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(d)



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3. Which geometrical figure will be formed if a plane intersects a cone parallel to its base?

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4. If the intersection plane is parallel to the generator of cone then what conic does it form?

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5. If the intersection plane is parallel to the axis of cone then what conic does it form?

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6. A plane perpendicular to the axis of cone intersects a cone not passing through the vertex.
Name the section so formed.

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7. A plane cuts the right cone not passing through its vertex and semi vertical angle α is less than angle made by the plane to the axis of cone. Name the section so formed.

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8. The semi vertical angle of a cone is α and the angle made by the plane with the axis of cone is θ . If $\theta = \alpha$, what is the name of the conic section formed by the intersection of a plane surface and cone?

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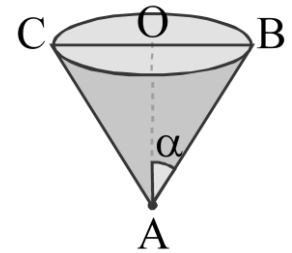
9. The semi vertical angle of a cone is α and the angle made by the plane with the axis of cone is θ . If $\alpha < \theta < 90^\circ$, what is the name of the conic section formed by the intersection of a plane surface and cone?

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10. The semi vertical angle of a cone is α and the angle made by the plane with the axis of cone is θ . If $\theta < \alpha$, what is the name of the conic section generated by the intersection of a plane surface and cone?

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11. What does each of the following represent in the figure?



A. AO

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B. AB

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C. α

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D. A

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12. The semi vertical angle of a cone is 40° . If the plane surface intersects the cone making an angle of 30° with the axis of the cone, write the name of the conic section so formed.

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