

Cross Section Flyer

Exploration Questions

1. Using the *Double Cone* setting and the *Rotate Slice* slider bar, describe the placement of the slice that results in a cross section that is a:
 - Circle
 - Ellipse
 - Parabola
 - Hyperbola
2. Using the *Pyramid* setting and the *Lateral Faces* slider bar, describe how the cross sections change as you increase the number of lateral faces.
3. Using the *Cone* setting, find at least 3 different cross section shapes. Describe the placement of the slice that results in those cross sections.
4. Using the *Cylinder* setting, find at least 3 different cross section shapes. Describe the placement of the slice that results in those cross sections.
5. Using the *Pyramid* setting, find at least 3 different cross section shapes. Describe the placement of the slice that results in those cross sections.

6. Using the Prism setting, find at least 3 different cross section shapes. Describe the placement of the slice that results in those cross sections.

7. Describe at least one similarity between pyramid cross sections and prism cross sections.

8. Describe at least one difference between pyramid cross sections and prism cross sections.

9. Describe at least one similarity between prism cross sections and cylinder cross sections.

10. Describe at least one difference between prism cross sections and cylinder cross sections.

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