

Lesson Summary

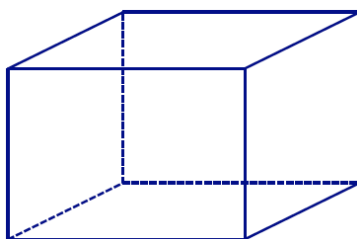
- Slices made at an angle are neither parallel nor perpendicular to a base.
- There cannot be more sides to the polygonal region of a slice than there are faces of the solid.

Problem Set

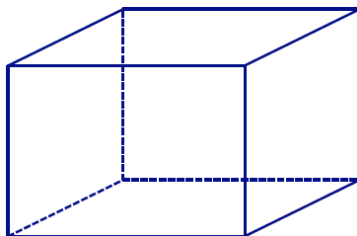
1. Draw a slice into the right rectangular prism at an angle in the form of the provided shape, and draw each slice as a 2D shape.

Slice made in the prism**Slice as a 2D shape**

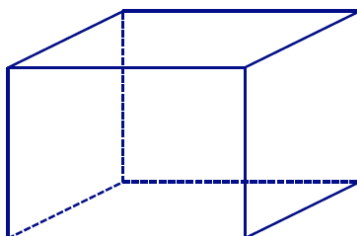
- a. A triangle



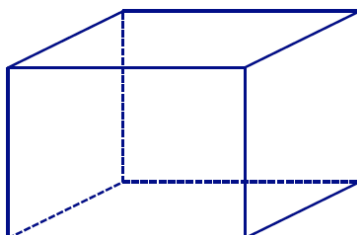
- b. A quadrilateral



- c. A pentagon



- d. A hexagon

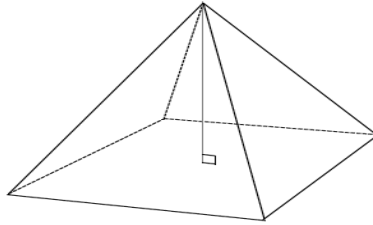


2. Draw slices at an angle in the form of each given shape into each right rectangular pyramid, and draw each slice as a 2D shape.

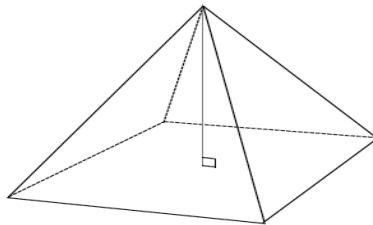
Slice made in the pyramid

Slice as a 2D shape

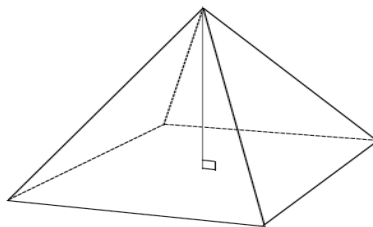
- a. A triangle



- b. A quadrilateral



- c. A pentagon



3. Why is it not possible to draw a slice in the shape of a hexagon for a right rectangular pyramid?
4. If the slicing plane meets every face of a right rectangular prism, then the slice is a hexagonal region. What can you say about opposite sides of the hexagon?
5. Draw a right rectangular prism so that rectangles $ABCD$ and $A'B'C'D'$ are base faces. The line segments AA' , BB' , CC' , and DD' are edges of the lateral faces.
- A slicing plane meets the prism so that vertices A , B , C , and D lie on one side of the plane, and vertices A' , B' , C' , and D' lie on the other side. Based on the slice's position, what other information can be concluded about the slice?
 - A slicing plane meets the prism so that vertices A , B , C , and B' are on one side of the plane, and vertices A' , D' , C' , and D are on the other side. What other information can be concluded about the slice based on its position?